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ABSTRACT

Four papers on Native American languages include these: "Reduplicated Numerals in Salish" (Gregory D. S. Anderson), which analyzes these patterns in Salish and compares them with other Salish languages; "Unitariness and Partial Identification in the Bella Coola Middle Voice" (David Beck), which argues for a single morpheme, instead of several, for one suffix and calls it a marker of a special case of middle voice; "Obviation Across Clause Boundaries in Kutenai" (Matthew S. Dryer), an analysis of restrictions across clause boundaries within sentences that require that the proximate be higher in the sentence than proximate nominals; and "Verb Agreement and the Structure of the Clause in Karaja" (Marcus Maia), a discussion of clause structure in a Brazilian indigenous language. (MSE)

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Studies in Native American Languages IX

edited by

John Kyle
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Preface

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Reduplicated Numerals in Salish

Gregory D.S. Anderson
University of Chicago

1 Introduction

One of the salient characteristics of the morpholexical systems of the Salish languages is the widespread use of reduplication in both derivational and inflectional functions. Salish reduplication signals such typologically common categories as 'distributive/plural, 'repetitive/continuative', and 'diminutive', the cross-linguistically marked --but typically Salish--notion of 'out-of-control' (Carlson and Thompson 1982; Kroeber 1988; van Eijk 1990)[1], or more restricted categories in particular Salish languages, for example the association of the historically diminutive reduplication pattern with a first singular referent in Shuswap (Anderson 1996). In addition to the above functions, reduplication also plays a role in the numeral systems of the Salish languages. The basic forms of several numerals appear to be reduplicated throughout the Salish family. In addition, correspondences among the various Interior Salish languages suggest the association of certain reduplicative patterns with particular 'counting forms' referring to specific nominal categories. While the developments in the other Salish languages are frequently more idiosyncratic and complex, comparative evidence suggests that the system reconstructable for Proto-Interior Salish may reflect features of the Proto-Salish system itself.

2 Reduplicated Simplicia

Throughout the Salish language family , there are numbers whose basic forms are inherently reduplicated. For example, in the Interior Salish languages numbers for '7', '9', and multiples of '100' are attested in reduplicated base forms in both Northern Interior Salish (e.g. Shuswap (Kuipers 1974) and Thompson River Salish (Thompson and Thompson 1996)) and Southern Interior Salish (e.g. Kalispel (Vogt 1940), Spokane (Carlson 1972, Carlson and Flett 1989), Coeur d'Alene (Reichard 1938), and Columbian (Czaykowska-Higgins 1993, Kinkade 1982)), without necessarily having cognate morphemes involved.

(1)

Shuswap	*cucɬke?*	'7'
Spokane	*sisp'əl*	'7'
Shuswap	*tmɬnk̓ʷukʷʔɛ*	'9'
Kalispel	*χχan'ut*	'9'
Coeur d'Alene	*m'əm'əsqən'*	'400'
	cucən'txtm'qən'	'700'
Thompson	*χəcpqɬqn'kst*	'100'
Columbian	*xəccakst*	'100'

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Other reduplicated simplicia of numerals can be found in the Interior Salish languages as well (2):

(2)

Shuswap	*səsele*	'2'
Columbian	*musəs*	'4'

The majority of forms listed in (1) and (2) above appear to be formally of the *CV- type; this is signaled not only by the presence of the *C(V)- reduplicated affix but also by the glottalization of resonants in Coeur d'Alene (*m/n > m'/n'*) and the deglottalization of obstruents in Shuswap (*k" >k"*) that is characteristic of these languages with this reduplicative pattern (Reichard 1939; Kuiper 1974). The relevant reduplicated simplicia in (Moses-)Columbian, on the other hand, appear to be formally of the *-VC type.

Other Salish languages likewise exhibit particular numerals whose unmarked forms are reduplicated. For example, in the Coast Salish language Twana (Drachmann 1969), the basic form of '4' is of the *-VC reduplicated shape, while in the Tsamosan Salish language Upper Chehalis (Kinkade 1991), one of the words for '1' is historically of the *CV- reduplicated type (3)

(3)

Twana	*busas*	'4'
Upper Chehalis	*ʔóʔc's*	'1'

3 Reduplicated Counting Forms

As is common in many languages of the Pacific rim and adjacent areas, Salish languages possess a highly complicated numeral system with special 'counting forms' for entities of a particular shape/type/class; these can be found in such geographically disparate, genetically unrelated, and typologically different languages as Salish and the Paleosiberian isolate language Nivkh (Gilyak, Krejnovich 1934). In Interior Salish languages, these generally involve two types of reduplicative affixes, viz. *CVC- and *CV-; both of these are attested in the function of creating 'people' counting forms, while the latter is also used in the creation of counting forms for 'animals'. In Coast Salish languages, *-VC reduplication is also used in the formation of numerals for 'people'. In addition, a range of language-specific reduplicated numeral constructions are sporadically attested throughout the Salish family.

The numerals used for counting 'people' in Interior Salish languages were generally formed with a stressed ('strong'[2]) *CVC- reduplicative prefix (and a deictic proclitic in many of the languages).

(4)

Colville	*kmusəms*	'4 people'
	kcilcəlkst	'5 people'
Okanagan	*kmosməs*	'4 people'
Shuswap[3]	*tmusməs*	'4 people'
	tkcilclkst	'5 people'

Thompson	*mosməs*	'4 people'
	ciycikst	'5 people'
	cułcułkeʔ	'7 people'
	x̌'áq'x̌'əqmekst	'6 people'
Moses-Columbian	*tk"ínk"inx*	'how many people'

According to Czaykowska-Higgins (1993), in Moses-Columbian *CVC- reduplication, like *-VC and *CV- reduplication, has become a stressed-syllable targeting process rather than a root-syllable targeting one; thus one finds examples like.

(5)

Moses-Columbian	*qaxíl-xil*	'2 people'

In some instances, however, a *CV- affix seems to have been used rather than *CVC- in Interior Salish languages (6).

(6)

Shuswap[4]	*təq'mémkst*	'6 people'
Thompson[5]	*səséye*	'2 people'
	pépyeʔ	'1 person'
	kəkeʔɬés	'3 people'
	təmɬpépyeʔ	'9 people'

Both of these patterns have parallels in the Coast Salish languages as well, e.g. Squamish (Kuipers 1967), Tillamook (Edel 1939; Thompson & Thompson 1966), Nooksack (Galloway 1993), Lushootseed (Bates, Hess and Hilbert 1994), Halkomelem (Galloway 1977) or Comox (Sapir 1991).

(7)

Squamish[6]	*t'əq't'aq'ač*	'6 people'
	čnčanat	'3 people'
	nč"nč"uʔ	'1 person'
	t'ək"t'ak"usač	'7 people'
	təqtqač	'8 people'
	c'əsc'əs	'9 people'
	ʔəpʔupn	'10 people'
	k"ínk"in	'how many people'
Tillamook[7]	*čənča:nat*	'3 people'

(8)

Nooksack	*nəmʔč"óʔ*	'1 person'
	nenč"óʔ	'1 person'

	səsæli?	'2 people'
Lushootseed[8]	*bəbuʔəʒ*	'4 people'
	səsáʔəʒi?	'2 people'
Tillamook	*sasa:li*	'2 people'
Halkomelem	*lálɔc'ə*	'1 person'
Comox	*pípaʔu*	'1 person'
	sísaʔu	'2 people'

As mentioned above, various Coast Salish languages also utilize *-VC reduplication to create 'people' counting forms, e.g. Lushootseed.

(9)

Lushootseed	*cəllac*	'5 people'
	ɬix̌Ɂxʷ	'3 people'
	χʷələl	'9 people'

In addition to the 'people' counting forms adduced above, reduplication was also used in the Interior Salish numeral system in the creation of of counting forms for 'animals'. These are attested in all the Northern Interior Salish languages and seem to be generally of the historical *CV- diminutive type.[9]

(10)

Lillooet	*pəpala*	'1 animal'
Shuswap	*ʔuʔpəkst*	'10 animals'
	mums	'4 animals'
	kɁikʷnx	'how many animals?'
Thompson	*mum's*	'4 animals'
	cúcɬke?	'7 animals'
	ƛ'aƛ'q'm'kst	'6 animals'
	ʔuʔpn'kst	'10 animals'
	sésy'e	'2 animals'
	cəciʔkst	'5 animals'

In one instance, Thompson River Salish seems to have a doubly *CV- reduplicated pattern for an 'animal' counting form, one application of which is apparently of the regular, productive stress-targeting type that is characteristic of the Northern Interior Salish languages, e.g. *keʔɬés* '3' > *keʔkɬéɬs* '3 animals'.

Similar forms can also be found in Coast Salish languages, e.g Squamish:

(11)

Squamish[10]	*c'ic's*	'9 animals' (< *c'əs*)
	t'at'q'ač	'6 animals'
	ʔuʔpn	'10 animals'
	t'at'k"usač	'7 animals'
	ninč"uʔ	'1 animal'
	kʷkʷn	'how many animals'

Some Squamish 'animal' counting forms are marked not only by a *CV- reduplicative prefix, but also by the infixation of glottal stop into the stem of the numeral. Such 'interior glottalization' is found in other Coast Salish languages associated with *CV- (or *Cɬ-) as well.

(12)

Squamish	*cici*ʔ*učis*	'5 animals'
	*čačn*ʔ*ut*	'3 animals'

In some instances, it is in the reduplicated syllable itself that the inserted glottal stop appears; note that in these cases, however, the function of the reduplication is different than in the Squamish examples above.

(13)

Sooke	*hiʔɬiʔɬx"*	'3 times'
Lushootseed	*saʔsəliʔ*	'2 small items'
	sɬʔəsəɬliʔ	'2 children'
	bɬʔbuus	'4 little items'

In various Coast and Tsamosan Salish languages, there are a range of language-specific functions of reduplication of numeral stems attested. These are all highly restricted in distribution, often limited to just a subset of numbers in a particular Salish language. Like the 'people' counting forms above, which seem to reflect both *CVC- and *CV- reduplication, these reduplicated numeral forms may similarly exhibit several different patterns within one and the same language. Note that *-VC reduplication is also frequently involved in these formations as well. Salish languages exhibiting such idiosyncratic formations include Lushootseed (Bates, Hess, and Hilbert 1994), Twana (Drachmann 1969), Sooke (Efrat 1969), Squamish (Kuipers 1967), and Upper Chehalis (Kinkade 1991).

(14)

Lushootseed	*bəbúus*	'4 trees'
	sal'sali(ʔ)	'2 by 2'
	dɬdidč"uʔ	'1 by 1'

(15)

Twana	*č"ɔʔɔʔɔs*	'3 by 3'
	c'x"ɔx"as	'5 by 5'

(16)

Sooke	*hiʔɬiʔɬx"*	'3 times'

(17)

Squamish	*t'ək"k"usač*	'7 days'
	təqqač	'8 days'
	ʔəppən	'10 days'

(18)

Upper Chehalis	*náč'ač'awšn*	'once in a while'
	čáɬali	'3 by themselves all the time'
	sáɬsali	'2 by themselves'
	nač'awaws	'1 to each'
	cám'ams	'2 to each'
	čanáwaws	'3 to each'
	sálisálčuɬ	'he has 2 wives' (cf. √*cəwɬ* 'wife')

In addition, various Coast and Interior Salish languages also show simple diminutive numbers associated with the historical *CV- pattern.

(19)

Lushootseed	*saʔəli?*	'2 small items'
	bíʔbuus	'4 little items'
	cícəlàc	'5 small items
Spokane	*m'um'əs*	'4 little ones'
	cicəl	'5 little ones'
	t'at'əq'ən	'6 little ones'

4 Conclusions

Reduplication was a salient part of the morpholexical system of Proto-Salish and its daughter languages, including the numeral systems. It is relatively clear that the use of reduplication to form numerals with specific reference to 'people' and 'animals' was available to speakers of dialects of Proto-Interior Salish. The semantic association of *CV- 'diminutive' reduplication with the 'animal' counting forms is fairly straightforward, and the formally and functionally cognate patterns attested in both Coast and Interior Salish languages suggest that these may reflect a Proto-Salish feature.[11] What pattern to reconstruct for the 'people' counting forms is less clear. It seems that both *CVC- and *CV- were used in Proto-Interior Salish, the latter perhaps conditioned by the phonological nature of a particular numeral stem, or more likely, simply with certain numbers themselves, e.g. '2'; again, parallels in both Interior and Coast Salish languages suggest that these may be old features in the Salish family, possibly dating back to Proto-Salish. The *-VC forms found in such Coast Salish languages as Lushootseed probably represent later innovations. The cognate reduplicative patterns in Shuswap and Kalispel-Spokane in the base forms of '7' and '9' are similarly suggestive of a Proto-Interior Salish feature, but the motivation for the association of *CV- (diminutive) reduplication with these particular

numbers is still unclear, not to mention the fact that cognate morphemes are generally not involved. It is also possible that the unmarked simplicia of certain other numbers may have favored association with particular reduplicative patterns in various dialects of Proto-Salish as well, cf. the correspondence of Columbian Salish *musəs* and Twana *busas* '4', both with *-VC reduplication. Resolving these issues however must await further research.

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[1] 'Out-of-control'-- a complex of notions of 'low transitivity'--is used in the Salishanist literature (e.g. Thompson 1979) to refer to a predicate marked by *-VC reduplication (or various affixes), whose state or result was brought about or achieved accidentally, without the volition of , or otherwise out of the 'control' of the referent that might canonically thought of as being 'in control' of such things, usually the subject, agent, or in the case of Thompson River Salish (Thompson and Thompson 1992), topic of the predicate. Interior Salish examples include Thompson *nmiʔiʔ* 'got loose by itself', Shuswap *puk̓ʷukʷ* 'be spilled', Coeur d'Alene *pen'ən'* 'it has come to be bent' or Colville (Mattina 1973) *ƛ'əɬal* 'dead' (< 'still'). The use of this reduplicative construction is most common in Interior Salish, but traces of functionally similar *-VC reduplication can be found in other Salish languages as well (e.g. Twana (Drachmann 1969) *ɬiq'aq'* 'slip' and *k̓ʷəɬaɬ* 'spill', Upper Chehalis (Kinkade 1964) *ƛet yəppɬ* 'slowly walk back and forth' and *məccqʔn* 'keeps on grinding it slowly', etc. Kroeber (1988) views the likely proto-semantics to be 'inceptive', not 'out-of-control', for Proto-Salish; van Eijk (1990) isolates two basic functions 'out-of-control' and a 'continuative-telic' aspect.

[2] Salish affixes are grouped into metrical classes according to their behavior in the complex stress assignment systems of the Salish languages; there are (two or) three groups 'strong' or stress attracting, 'weak' or unstressed, and 'variable' or alternatively stressed with weak roots and unstressed with strong ones. As processes of affixation, Interior Salish reduplicative patterns must also be assigned to a given metrical class. Productive *CVC- distributive/repetitive/PL is mostly weak (unstressed) in the Interior Salish languages, except Coeur d'Alene where most examples are strong, and Lillooet where *CVC- is variable (with a phonological reorganization of the stem-classes, see van Eijk 1993). In addition to this *CVC-reduplication there was another semi-productive pattern (so-called 'attributive' (Haeberlin 1918)), that may have been a strong or variable affix in Proto-Salish (e.g. Thompson *zéw'zuʔ* (*w' > *uʔ* when 'vocalized' or in a 'syllabic' position), Lillooet *ʕəlʃəl* 'strong', Okanagan (OCB 1993) *pχpaχt* 'smart' or Coast Salish Saanich (Montler 1986) *qʷəlqʷəl* 'talkative'). It seems that the formal shape of the *CVC- reduplication used in the 'people' counting forms (i.e. a 'strong' affix) are more suggestive of the latter ('attributive') type of *CVC- reduplicative pattern.

[3] The formation of reduplicated 'people' numerals is quite idiosyncratic with the reduplicated simplicia in Shuswap. '9' lacks a 'people' counting form altogether, while '7 people' is formed merely by cliticizing the deictic directly to the base form without further reduplication *tkcucɬkeʔ* '2 people' is formed by adding the deictic element to an unreduplicated base form with an unmotivated glottal stop or glottalization: *tkʔsele* or *tk'sele*.

[4] Note the form with a stress-targeting *ˊ-C(V)- type infixed reduplicative copy--the synchronically productive reflex of the Proto-Interior Salish *CV- (diminutive) prefix in the Northern Interior Salish languages, see Anderson (1996).

[5] Note that in most of these instances, the second stem consonant is a glide. There is also a possible example of *-VC reduplication in a Thompson counting form, or at least the stressed-syllable targeting process that is characteristic of Moses-Columbian and the Northern Interior Salish languages with *CV- and *-VC reduplication. In this form, the distinction between 'animal' and 'people' counting forms has been neutralized (*piʔɬips* '8' >) *piʔuʔps* '8 people/animals' (Thompson and Thompson 1996).

[6] In some instances, however, forms that appear to be *CV- reduplicated probably are simply vocalized *C(V)C- reduplicated forms (Kuipers 1967: 149-50), e.g. Squamish *ciciačis* '5 people' (<**c(i)y*) or *χəχaʔucn* '4 people' (<**χəɬ*).

[7] Note the lengthening of the stem vowel in the reduplicated Tillamook forms; cf. the example in (8) as well.

[8] Note the glottal stop that has been inserted in these reduplicated Lushootseed forms. In addition to *CV- and *-VC reduplicated 'people' numerals in Lushootseed, there are also diminutive forms derived from these.

e.g. *sɬʔəsə̀li?* '2 children' or *ɬɬɬxʷɬxʷ ~ ɬəɬɬʔxʷɬxʷ* '3 children'. This glottalization also occurs in other Salish languages, see examples in (12) and (13) below.

[9] *CV- 'dimunutive' reduplication is attested in most Salish languages, e.g. Spokane (Carlson and Flett 1989) *l'ul'ak*ʷ 'small stick of wood', Shuswap (Kuipers 1974) *sqaqaləmux*ʷ 'boy', Snohomish (Hess 1966) *kʷikʷu* 'little skin' or Bella Coola (Newman 1971) *qʷuːqʷuluni* 'little beaver' (with *-i* diminutive).

[10] Note that in some of these Squamish forms, and throughout the Coast Salish languages, the *CV- pattern is often more properly analyzed as a Cɬ- reduplication.

[11] For instance '5 cute/little ones' > '5 animals'. While the presence of simple diminutive numbers in Spokane and Lushootseed may indeed represent the earliest system, it is also possible that these are later parallel developments in these two languages.

UNITARINESS AND PARTIAL IDENTIFICATION IN THE BELLA COOLA MIDDLE VOICE*

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Abstract: The Bella Coola suffix *-m* has been analyzed in the literature as two or even three separate morphemes, based on the variable effects it has on the transitivity of its base. In this paper, I argue for *-m* as a single morpheme with a unified meaning—specifically, as a marker of a special case of Kemmer's (1993) definition of the middle voice which I will refer to as the "non-unitariness" of event-participants. The cross-linguistically unusual "transitivizing" uses of *-m* are shown to fall out from the presence of a second, individuable entity in a semantically typical middle clause, independent of the application of the middle-marker itself.

1) Bella Coola *-m*

One of the most interesting of the verbal affixes in Bella Coola,[1] a Salishan language from the central coast of British Columbia, is the suffix *-m*, which is most likely a reflex of the Proto-Salish **-m* that appears in some form or another in almost every language of the family. Because of the many and varied uses of this morpheme in Bella Coola, some researchers have posited that *-m* represents two (Davis & Saunders 1984) or even three (Nater 1984) separate morphemes, based in part on the varied effects it has on the transitivity of its base, in some cases rendering a transitive verb intransitive and in others apparently transitivizing intransitive (even nominal) stems. More recent work (Davis & Saunders 1989, 1997), however, has argued for *-m* as a single morpheme with a unified meaning, one that cuts across issues of syntactic transitivity, and in the paper that follows I lend some support to that position and argue for *-m* as a marker of middle voice as defined by Kemmer (1993), the wide range of uses and variable effects on transitivity it has being typical of the behaviour of the middle marker in many languages. In particular, I will argue that the Bella Coola *-m* serves as a marker of a special case of Kemmer's definition of the middle voice that I will refer to as "non-unitariness" of participants, a concept that will be outlined in Section 2 below. Section 3 will enumerate uses of *-m* which are typical cross-linguistic middle forms and Section 4

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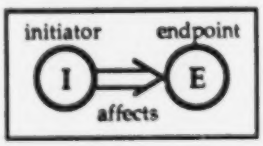
of this paper will examine another set of uses of *-m* in transitive and transitivized clauses, some of which do not have parallels in the data in Kemmer (1993).

2) The Middle Voice

Traditional characterizations of the middle voice define it as a verb form which "serves to express that the subject is acting on herself/himself (reflexive) or for herself/himself" (Trask 1993: 171). Such definitions, however, do not entirely account for the behaviour of the middle morpheme in a great many languages and recently, based on extensive cross-linguistic comparison, Kemmer (1993) has put forward a different definition of the middle voice, one based on what she characterizes as the "relatively low elaboration of events". For Kemmer, an event can show low elaboration in one of two ways, the first and most typical being the failure of a clause to make a clear distinction between two-event participants, a characteristic Kemmer refers to as "low-participant distinguishability." According to Kemmer, the middle voice lies, along with the reflexive, at an intermediary position on the scale of semantic "transitivity" (as outlined by Hopper & Thompson 1980) between events that distinguish only one participant (prototypical intransitives) and those that distinguish two participants (prototypical transitives); the fully transitive event has two distinct, highly individuated participants which Kemmer refers to as the "initiator" (≈ "agent") and the endpoint (≈ "patient" or "theme"), and can be represented schematically as in the diagram in (1).

(1)



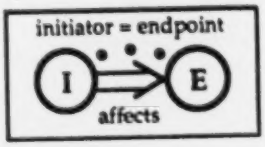
(based on Kemmer 1993: 50)

Event participants are shown here as circles, while the arrow between them represents an interaction originating with the initiator and terminating at the endpoint, typically effecting in that endpoint a change of state.

At the opposite end of this scale lie prototypical intransitive events which have only one participant that is conceived of as neither initiator nor endpoint, while somewhere between prototypical transitive and intransitive events lie reflexives and middles. Many languages fail to differentiate between these two types of clause and grammaticalize the mid-portion of the transitive-intransitive continuum with a single

marker; other languages, like Bella Coola, do make a distinction and fall into a class that Kemmer designates "two-form languages". In two-form languages, reflexives typically represent fully transitive events in which the initiator and the endpoint are treated morphosyntactically and conceptually as if they were separate entities whose full identity with one another is indicated by the use of a reflexive marker (commonly a pronoun, or a historical reflex of one). This type of schema can be represented as in (2), where the dotted arc signifies coreference:

(2)



(based on Kemmer 1993: 71)

According to Kemmer, reflexive clauses in two-form languages are syntactically transitive clauses, and the endpoint is treated as it if were independent from the initiator, thereby maintaining the distinguishability of event-participants which fill different semantic roles in the clause. In middle forms, on the other hand, distinguishability of event participants is not maintained in that the endpoint is not treated as a completely separate entity from the initiator and the middle marker does not have the same morphosyntactic status of full NP or pronoun usually accorded to the reflexive morpheme, resulting in a reduction in the semantic (and often the syntactic) transitivity of the clause. Kemmer represents such situations as in (3).

(3)

(based on Kemmer 1993: 71)

In such events the endpoint can represent some portion of the initiator, typically a body part, or initiator and endpoint can be conceived of as separate portions of a common whole, as in cases where the will of the initiator acts in some way so as to have an effect on the initiator's body. Either case falls under the heading of what I will refer to here as "partial identity", wherein an event-participant is broken down conceptually into two subcomponents which are identified with one another as being parts of a single, "non-unitary" entity. While Kemmer does not take up this issue in any detail, I will argue that in Bella Coola it is this notion of non-unitariness that makes for the crucial distinction between middle and one-participant events, the middle employed in events involving a single, non-unitary entity or where there is partial identity between the initiator and another event-participant.

3) Canonical Middle Uses

An examination of the various occurences of the Bella Coola *-m* reveals that the bulk of these represent fairly standard cross-linguistic uses of the middle voice as outlined by Kemmer (1993). These uses fall roughly into four categories: middles of body action, grooming, and speech, middles of body posture, non-translational, and translational motion, middles of cognition and emotion, and mediopassive/spontaneous event middles. In the first of these groups, verbs are built on transitive roots and involve one or more suffixes denoting an affected body part, as in (*-m* is underlined here and in subsequent examples):

(4) (a) ʔic+uɬ+ank+m+s+kʷ+ma+c̓n ɬax̌
rub+body+front+[md]+[qtv]+[dub]+[impf] that·one
'he must have rubbed his stomach'
(Davis & Saunders 1980—henceforth, BCT—168, line 99)

(b) ɬuc̓+uuɬ+m+kʷ+su+c̓ iɬ
uncover+body+[md]+[qtv]+[expb]+[perf] she
'she undressed again'
(BCT 137, line 95)

The affected body part surfaces as a "lexical suffix"—an affix common in Salish languages which has the semantic content of a full noun but no cognate independent form. When *-m* is present in the clause, the expression becomes intransitive and the lexical suffix refers to the affected body part of the subject, whereas when *-m* is absent the clause is transitive and the lexical suffix is taken to be a part of the direct object. This is illustrated by the forms in (5).

(5) (a) cp+ak+m+c
wipe+hand+[md]+1s
'I am wiping my hand'
(Davis & Saunders 1973: 238)

(b) cp+ak+cinu
wipe+hand+2s-1s
'I am wiping your hand'
(Davis & Saunders 1973: 232)

According to Kemmer (1993), body action and grooming expressions such as those in (4) make use of the middle to indicate a low degree of "participant distinguishability"—that is, the middle morpheme serves

to indicate that the grammatical subject is in some way both initiator and endpoint of the event in question. The presence of *-m* in (5a) also serves as a mark of partial identity between endpoint and initiator, while its absence in (5b) forces an interpretation of the event where initiator and endpoint are clearly separate, the lexical suffix being associated not with the subject but the direct object of a transitive, two-participant, clause.

The next category of Bella Coola middles comprises two groups of stems, the first containing verbs denoting body postures and non-translational motion. Many such verbs are deponents (that is, they have no non-middle form), while others come from either transitive (6a) or intransitive (6b) roots:

(6) (a) ƛ̓ap+s+kʷ+c̓ ta+nanmk̓+tx̌ s+ka+liq̓ʷ+m̲+s
go+3s+[qtv]+[perf] D+animal+D np+[irr]+roll+[md]+3s
'the animal began to roll'
(BCT 196, line 36)

(b) ʔax̌c+m̲+a+kʷ+c̓ s+q̓ux̌+lx+aw
lying·down+[md]+3p+[qtv]+[perf] np+tired+[inc]+3p
'they went to bed tired'
(BCT 90, line 31)

Once again, as in the previous two middle uses, stems such as these represent the construal of the action as one where the endpoint of the event is the initiator's body, thereby representing a decrease in the distinguishability of the event participants. The notion of non-unitariness seems not to be especially important in these cases, although—as we shall see in the discussion of verbs of translational motion and mediopassive/spontaneous-event middles—the reading of such clauses as events rather than states may be an argument for the single-participant's will or some other property of that participant being construed as the event-initiator.

Closely related to the notion of non-translational motion is that of translational motion. These represent an especially frequent use of *-m*, the bulk of their attestations being of three stems—*ɬx̌ʷm* 'flee', *cikʷałm* 'start walking' (lit. 'start-foot'), and *q̓ʷx̌ʷ* 'move'. Kemmer argues that the appearance of the middle morpheme on motion verbs is a result of the complete indistinguishability of participants in that the initiator of the event is itself the endpoint of that event, at least in the sense that the initiator's body is set in motion by the initiator itself. While this may seem to justify the occurence of the middle-marker in only a triv-

ial sense (that is, such events are not construable with more than a single participant) some support for Kemmer's position can be found in the Bella Coola data in that middle forms seem only to apply to the motion of animate (volitional) objects. In such situations it could be argued that the motive force behind the event is the will of the moving entity, which may then be construed as an initiator of the event, the mover's body or entire being thus becoming a conceptual endpoint of the interaction. Seen in this way, the single participant in such an event can be seen as a non-unitary entity in precisely the same way the initiator/endpoint of a body action or grooming event is perceived—although in the former case the part affects the whole, while in the latter the whole affects a part—and in this way a one-participant event can be construed as having both an initiator and an endpoint.

The third set of cross-linguistically typical middle uses in Bella Coola is that of verbs denoting events of cognition or emotion such as:

(7) (a) ʔix+lq̓+m+aw al+a+ka+c̓kta+tu+t
[dist]+think+[md]+3p P+D+happen+[caus]+3s-3p
ta+nanmk̓+tx̌
D+animal+D
'they thought about what to do to the animal'
(BCT 21, line 158)

(b) nu+na+nix+ik+m+iɬ+c̓ wa+axʷɬ
([in]+forget+[l.o.c.]+inside+[md])+3p-1p+[perf] D+some
ʔal+a+axʷɬ a+smsma
P+D+some D+story
'we forget some parts of the stories now'
(BCT 87, line 4)

Verbs of cognition and emotion fall under the heading of middle because of the inseparability of the initiator and the endpoint of the event, in that the endpoint is, in effect, the initiator's mind. Such expressions are distinct from simple intransitive events in that they may involve more than a single participant as in (7a), where the initiator thinks about an abstract, reified event, or in (7b), where the initiator can not call to mind details of a particular story.

Like some of the other verb forms considered so far, middles of cognition may be formed on transitive stems, although in these cases the distinction between a transitive form such as *ʔlq̓* 'think about [sth]' and *ʔlq̓m* 'think [about sth]' is not always clear. In these cases, the choice to the transitive form seems to depend on the degree to which the sec-

ond participant is perceived as a separate entity, or the degree to which it is individuated from the initiator as something that exists and can be interacted with (at the moment of the event) in the real world. Consider, for instance, the sentences in (8):

(8) (a) ʔlq̓+tis wa+ʔamatalaaxˇt+s+c
think+3p-3s D+parents+3po+D
'she thought of her parents'

(b) ʔix+ʔlq̓+m+ap ʔull+a+ka+umat+aɬ+ap
[dist]+think+[md]+2p P+D+[irr]+be·located+foot+2p
'you guys had better think of where you are going'
(Davis & Saunders 1989: 133 – 134)

In sentence (a), the initiator turns her mind to completely separate, individuated entities, which become the syntactic direct object of the clause; in (b), the initiators turn their minds to an abstract event (or, to be more exact, the nominalization of an abstract event, representing their potential destination) which has no existence outside of their mental activity and thus does not constitute a individuable entity. Because the semantics of such mental processes as "forgetting", "figuring out", and "realizing" may be bound up in the initiator's interaction with individuable aspects of external reality, it is not surprising that such events turn up in transitive clauses such as (8a) and (7b). Note that according to Kemmer (1993), the endpoint of the mental process in such interactions is not the external entity itself, but is rather the initiator's mind. Seen in this way, the stimulus is clearly not an endpoint of the interaction but an intermediary link between initiator and endpoint; such processes identify initiator and endpoint without designating them as a unitary entity (the thinker is not the thought)—hence, the presence of *-m*—and, as noted above, whether or not the stimulus is realizable as a direct object in a transitive clause seems, in Bella Coola, to be a function of the degree to which it qualifies as an external, autonomously-existing entity. The notion of the middle appearing in clauses with a direct object which is not, in fact, the semantic endpoint of the event will be taken up below and again in the context of the transitivizing uses of *-m*.

Across languages, one of the more interesting uses of the middle voice is in the formation of mediopassive constructions, exemplified by Spanish expressions such as *aqui se venden libros* 'books are sold here'. According to Trask (1993), the mediopassive is defined as a construction in which a transitive verb is used intransitively and the affected semantic participant appears in subject position, with no agent

expressed (or expressible) in the clause. In Bella Coola, this gives us pairs of sentences such as those in (9):

(9) (a) p̓s+ic ti+stn+tx
bend+3s-1s D+stick+D
'I'm bending the stick'

(b) p̓s+m+ø ti+stn+tx
bend+[md]+3s D+stick+D
'the stick is bending'

(Davis & Saunders 1989: 133)

It should be noted, however, that in spite of the fact that Davis & Saunders choose to gloss the bulk of the instances of *-m* in BCT as "mediopassive", in reality there is only a single instance of *-m* in the texts that conforms to the standard definition, *smsma* 'tell story' > *smsmam* 'be told (story)'. In addition, Nater (1984) lists three verbs with *-m* which seem to be mediopassive—*x̌up* 'insert [sth]' > *x̌upm* 'sink (in mud)', *plik* 'tip over [sth]' > *plikm* 'capsize', and *sxʷ* 'burn [sth]' > *sxʷm* 'be burning'. This seems to indicate that the class of mediopassives in Bella Coola is rather small—a conclusion that is not altogether surprising, as the definition of mediopassive depends on the inherent transitivity of the verbal root, whereas a great many roots in Bella Coola are inherently stative and/or intransitive.

A rather more robust class of uses of the Bella Coola *-m* corresponds what Kemmer (1993) designates "spontaneous events"—that is, events which seem to take place without any overt agent or agency. These stems offer a non-middle/middle contrast where the unmarked form has an essentially stative reading, and the marked form has an event-reading, reflecting a "spontaneous" or agentless change of state, as (10):

(10) (a) xm+ø
broken+3s
'it's broken'

(b) xm+m+ø
broken+[md]+3s
'it broke'
'it's breaking'

(Davis & Saunders 1989: 134)

For Kemmer, such verbs represent a rather marginal use of the middle voice, falling under the heading of the middle because they fail to dis-

tinguish two participants involved in an event. Like middle-marked verbs of transitional motion, these forms seem to conform to the middle prototype in a trivial way, and the question arises of why such verbs—which represent prototypically non-volitional, single-participant events—are not simply realized as intransitive clauses, perhaps with the appropriate aspect-marking to distinguish stative readings from events. Nevertheless, it could be argued that such stems admit of the same type of analysis given previously for verbs of translational motion, in that the grammatical subject of the sentence can be analyzed as being in some way non-unitary. According to van Oosten (1977), mediopassive expressions such as "the book is selling like hotcakes" reflect a certain degree of subject-agency in the sense that "the properties of the patient subject bear responsibility for the action of the predicate in a way that properties of the agent subject normally do" (cited in Davis & Saunders 1989: 134). While the verb in (10) is not in the mediopassive (its unmarked form not being transitive), it may be the case that certain relevant properties of the grammatical subject are considered to be the initiator of the event because they are in some way responsible for the event's taking place in a way that the subject as a whole is not. Thus, the initiator/endpoint becomes an entity which is non-unitary but which is at the same time not separable into two individuable participants.[2] This construal of the single event-participant as a non-unitary entity also seems to explain the event-reading conferred on these stems by *-m*, in that the subdivision of this participant allows for the event to have both an initiator and an endpoint, avoiding the stative reading that seems to come with having a single, unitary participant in the clause.

The final cross-linguistically ordinary use of *-m* is to derive verbs denoting frequent, culturally important activities. This group can be formed on nouns and on transitive verbs, the result being an intransitive expression with a highly specific, lexicalized meaning, as in (11).

(11) ƛ̓ap+aw s+ka+sax^{w}a+m+aw aɬ+tx̌^{w}
go+3p np+[irr]+dipnet+[md]+3p P+then
'they went drag-seining then'

(BCT 62, line 36)

These forms resemble certain middles which are mentioned only in passing in Kemmer (1993) dubbed "object-deletion" or "anti-passive" uses of the middle marker; according to Kemmer, such constructions are middles in "certain Australian languages", Georgian, and in Russian sentences such as the example in (12):

(12) sobaka kusa+jet+sja
dog bite+3s-present+[md]
'the dog bites'

Kemmer argues that such middle uses are covered by her definition of the middle-marker as designating "low elaboration of events" in the sense that, while a sentence such as (12) clearly has some kind of affected semantic endpoint, the identity of this endpoint is left completely unelaborated, making this type of construction the converse of the mediopassive, in which it is the semantic agent rather than the affected participant that is removed from the clause.

Object-deleting uses of the middle are also found in Bella Coola in contexts other than the "cultural activity" verbs shown in (11). In BCT there are a fair number of instances of detransitivized forms derived from transitive stems, appearing in sentences such as

(13) (a) wnc̓+m+a+kʷ ʔaɬ+txʷ
kill+[md]+3p+[qtv] P+then
'they killed some then'

(BCT 223, 181)

(b) ... ʔal+a+k̓ixʷ+m+ø ʔaɬ+tu+knum+aw+txʷ
P+D+gnaw+[md]+3s P+D+dried·fish+3p+D
'... at [the one who] gnaws at their dried fish'

(BCT 63, 48)

Sentence (a) shows the transitive verb *wnc̓* 'kill [sth]' as an intransitive middle form in a clause which has no overt object; (b), on the other hand, shows another detransitivized form, *k̓ixʷm* 'gnaw', which has an overt, albeit oblique, object.

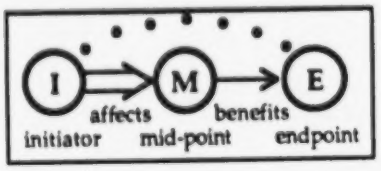
Like the activity verbs illustrated in (11), these detransitivized forms appear to belong to Kemmer's class of "object-deletion" middles in that they allow for an indefinite or unelaborated semantic patient, as in the example in (13a). However, unlike the Russian example in (12), detransitivized middle forms in Bella Coola do allow for an optional oblique object introduced by a preposition, as in (13b). This is an important point which relates some uses of the Bella Coola *-m* to its cognates in other Salishan languages. Consider the following middle form from Lushootseed, a Coast Salish language of northwestern Washington State, based on the intransitive stem *q̓ʷəl* 'ripe, ready to eat':

(14) ʔu+q̓ʷəl+b tsi luχ̓ ʔə ti sʔuladxʷ
[pnt]+ripe+[md] D*f* old P D salmon
'the old woman roasted herself the salmon'

(Hess 1993: 43)

The principal function of the morpheme *-b* in Lushootseed is to increase the valency of the verb root by one and to shift the semantic role of the grammatical subject from that of affected participant to that of causative agent. This function has been related to that of the middle voice (Hess 1993, Beck 1996) in that in this use the verb serves to express the action of the initiator/subject in its own self-interest, thereby conforming to traditional characterizations of the middle voice such as that offered by Task (1993). Definitions of the middle voice in terms of "subject-affectedness" are also noted by Kemmer (1993), who argues that such uses conform to her definition of the middle as marking "relatively low elaboration of events" in that subject-affectedness can be equated to an identification of the initiator/subject with the endpoint of the event. This point becomes a bit clearer when the middle use in (14) is compared with what Kemmer defines as the "indirect reflexive" construction, an English sentence such as "he bought himself a hat", shown schematically in (15).

(15)



(based on Kemmer 1993: 76)

This construction makes use of the reflexive pronoun to indicate that the endpoint of the event is unitarily identified with initiator; the hat represents an intermediate point (M) in the chain of events, an entity whose purchase had some (indeterminate) effect on the purchaser. In many languages like Lushootseed, the middle marker may be used instead of the reflexive pronoun to indicate identity of initiator and endpoint, although in this language—contrary to Kemmer's claims—the distribution of the middle *-b* is not restricted to situations that "normally" or "necessarily" have an indirect reflexive reading, the morpheme being highly productive across verb stems of divers semantic categories, perhaps as a result of the conceptual separation and partial identification of the initiator's interests from the initiator itself—a typical environment in which to find a middle-marker.

As a result of the identification of the subject—or, rather, the subject's interests—with the endpoint of the Lushootseed example in (14),

the semantic patient is realized as an oblique rather than a direct object, thereby "defocusing" that participant or, in the terms of Langacker (1991), removing it from the "profile" of the verb stem. Given Hopper & Thompson's (1980) observation that one of the primary focuses of a prototypical transitive event is the affectedness of the semantic patient, the detransitivization of a clause that defocuses this participant is a plausible, although not inevitable, outcome. For Bella Coola, Davis & Saunders (1989) note that oblique objects such as that in (13b) show the same kind of reduced saliency that their Lushootseed counterparts do in middles, although the parallel is not complete in that the self-interest reading has been replaced by a more general reading of the event as an activity of the initiator performed on an indeterminate or defocused object. This activity-reading leads Davis & Saunders (1989) to provide "translocative" glosses of transitive verbs affixed with *-m*, glosses which, they argue, show a defocusing of the subject/agent, as in

(16) tx+ak+m+c
cut+hand+[md]+1s
'I'm going to go out and cut my hand'
(Davis & Saunders 1989: 132)

However, in what way the subject of the clause in (16) is defocused is not clear, and it is my own feeling—based on the gloss of this and other examples in Davis & Saunders (1989), as well as on glosses from the contextualized instances in BCT (which are not given as translocatives)—that the effect of such constructions is, in fact, to focus on the subject and the nature of the event as an activity of that subject, the translocative glosses being semantically parallel to such English expression as "to go shopping," "to go fishing/birding", or (in the case of (16)) "to go hand-cutting".[3] The fact that such constructions in the synchronic grammar of Bella Coola surface with *-m* may, in part, be due to historical accident, a result of the erosion of the self-interest reading shown by cognate Lushootseed *-b*; however, it does seem that, at least to some extent, this use of the Bella Coola *-m* conforms to the most abstract characterization of Kemmer's middle voice in that the defocusing of an object represents the reduced elaboration of participants.

4) *-m* and Transitivity

So far, most of the uses of *-m* discussed have represented fairly standard cross-linguistic uses of the middle morpheme to mark partial identity of endpoint and initiator of an event residing somewhere in the intermediate range of the continuum running between one- and

two-participant events. Because one of the principal characteristics of the transitive event across languages is the presence of two highly individuated participants (Hopper & Thompson 1980), events which do not clearly distinguish two-participants—that is, events designated by intransitives and middles—tend be realized as syntactically intransitive clauses, and because of this the middle marker in many languages functions as a detransitivizer, forming intransitive verbs when attached to transitive stems (Kemmer 1993). While most of the Bella Coola data considered up until this point seem to conform to this pattern, there are a relatively large number of instances in the data (based on a proportionally small set of stems) that show middle forms of verbs appearing in transitive clauses, clauses which in some cases appear to have been transitivized by the presence of the *-m* itself. This fact has led some writers (including Davis & Saunders at an earlier phase of their research, at the time of the publication of BCT) to posit separate meanings for the two types of *-m*—a mediopassive or middle meaning for *-m* in its uses as discussed up until now, and a separate transitivizing meaning.

One reason to doubt that the uses of *-m* can be divided neatly along the lines of transitivity, however, is the fact that in many cases the presence or absence of *-m* appears to have no direct effect on the clause's syntactic transitivity: with many stems *-m* seems to allow the formation of both transitive and intransitive clauses, as shown in (17):

(17) (a) tay+is snac ti+pucq̓+tx
pound+3s-3s Snac D+hellebore+D
'Snac pounded hellebore'

(b) tay+m+is ti+pucq̓+tx
pound+[md]+3s-3s D+hellebore+D
'he went to pound the hellebore'

(c) tay+m+ø
pound+[md]+3s
'he went routinely to pound'

(d) *tay+ø
pound+3s

(Davis & Saunders 1989: 120 – 121)

The sentence in (a) is an ordinary transitive clause, marked by the transitive agreement paradigm, as is the *m*-form in (b). The sentence in (c), on the other hand, shows intransitive subject agreement and in this

sentence the meaning of *-m* is clearly an instance of the type of activity reading seen in the detransitivized clauses illustrated in (13) above. According to Davis & Saunders (1989), the semantic distinction between (a) and (b) is a translocative one which serves to defocus the endpoint/direct object (in their terms, the "Experiencer") and lessen its affectedness; Davis & Saunders go on to note that sentences (b) and (c) also seem to have a lessened sense of performance and immediacy, which, as discussed in Section 3, may indicate that we are not dealing here so much with a literal translocative meaning as an activity reading, a "going-pounding". If this is indeed the case, then the function of *-m* in (b) is also clearly related to the detransitivizing use of the morpheme, the crucial difference between (b) and (c) being the presence in the clause of a completely individuated second participant—an important semantic feature of transitivity, according to Hopper & Thompson (1980)—rather than the presence or absence of a particular *-m* (although the presence of *-m* is not completely irrelevant to transitivity, as shown by the ungrammaticality of (d)).

Some further evidence for the relative independence of morpho-syntactic transitivity from the presence/absence of *-m* is seen when deponent verbs turn up in transitive clauses, as in (18):

(18) (a) ... s+ʔax̌snix+it ti+nunu+ɬx̌+uc+m̲+ø
np+hear+3s-3p D+([agt]+chant+mouth+[md])+3s
'... when they heard someone chanting'

(BCT 44, line 11)

(b) nu+ɬx̌+uc+m̲+tim+k̓+c̓ wa+x̌ax̌aq̓+ac
([agt]+chant+mouth)+[md])+3p-pass D+goose+D
'the geese are chanted to'

(BCT 52, line 93)

Here, the deponent middle form *nuɬx̌ucm* 'to make noise, chant' appears in (a) as the only participant in an intransitive clause, the middle-marker's presence being required by the partial identification of the event's initiator (the chanter) and its endpoint (the chanter's mouth, represented by the lexical suffix *-uc*); in (b), the same verb—presumably with the same *-m*, motivated by the same considerations—appears in a transitive clause, showing transitive (or, more precisely, passive) agreement, apparently triggered by the construal of the event as having two-participants. Given the probable identity of the two instances of *-m* in the transitive/ intransitive pair in (18) and the semantic similarity of its uses in (17), it does seem likely that *-m* can be analyzed as a middle marker both in its detransitivizing and its "transitivity-neutral"

use. In the latter case *-m* appears to trigger a reduction in semantic transitivity, which in itself may not be enough to force a syntactically transitive root such as *tay* in (17) to become syntactically intransitive, but which may allow this in clauses lacking other semantic features of transitivity—specifically, the involvement of another, highly individuated participant.

According to Davis & Saunders (1989), the appearance of *-m* in transitivized clauses represents the incorporation of an element which is usually peripheral to the event into the "nucleus" of the "proposition"—that is, the syntactic advancement of a participant in a less-salient thematic role to either syntactic subject or direct-object position in the clause. In effect, *-m* in such uses is said to serve as the mark of the semantic peripherality of an element occupying a syntactic position normally held by a participant in a more salient role. Conversely, in intransitive uses such as those discussed in the previous section, *-m* is used to mark the syntactic ("propositional") peripherality of a semantically "central" or salient role ordinarily realized as nuclear in the proposition (subject or object), but which in detransitivized forms is omitted from the clause altogether. Thus, for Davis & Saunders, *-m* indicates a marked situation with respect to mapping semantic roles to syntactic positions, *-m* appearing in clauses that violate expected pairings of semantically salient roles to syntactically nuclear positions.

As ingenious as this analysis is, it is unsatisfying from a cognitive or functional/typological perspective on a number of counts. The first of these is that it, in effect, reduces the status of *-m* to that of a syntactic process morpheme—that is, it attributes to *-m* no semantic content of its own, but instead posits it as a marker of the occurrence of a particular process in the syntactic machinery which in itself does not seem to have any clear meaning. The upshot of this is that by maintaining that *-m* is a mark of the *continued* semantic peripherality of an event-participant that has been syntactically promoted to a nuclear position (or vice versa), Davis & Saunders seem to be arguing against the position common in the cognitive literature that syntactic promotion of an event participant is in itself a mark of *increased* semantic saliency. If *-m* is the mark of unchanged saliency, what is the semantic effect of object promotion in (18b), and—if *-m* itself has no effect on object-saliency—on what basis can we ascribe to *-m* the apparent change in meaning of the sentences in (17)? A even more serious objection, however, is that any such analysis of *-m* overlooks the fact that, at least in its intransitive and detransitive uses (which account for the bulk of the forms in the data), the meanings of the Bella Coola *-m* correspond to the meanings of the middle marker uncovered by Kemmer (1993) in language

after language. As it turns out, an examation of the uses of *-m* in transitivized clauses shows that many of these, too, can be classified as middles in the same way as other *m*-forms in the language.

One of these parallel uses of transitivizing *-m* has to do with actions that directly affect or pertain to the initiator's body or person, as in (19):

(19) ʔiċama+m+is+kʷ+ċ iɬʔayɬ ta+nanmḵ+tx̌
blanket+[md]+3s-3s+[qtv]+[perf] she D+animal+D
'she had put on the hide of an animal'

(BCT 137, line 90)

The form in (19) indicates an action akin to dressing, in which the endpoint is the initiator's body and the direct object more of an instrument than a patient (*i.e.* 'she blanketed herself with the animal'); the relation to the body action and grooming forms in (4) is obvious, as is the potential historical relation to the self-interest uses of the middle marker in other Salishan languages.

This rather infrequent use of *-m* is closely related to another middle use that I will refer to as an "instrumental middle". In this highly productive construction, a (usually intransitive) verb is affixed with both *-m* and a lexical suffix representing a part of the initiator's body which serves as some kind of instrument, this combination of a body-part suffix with *-m* causativizing and transitivizing the clause, as shown in the embedded clause in (20), formed on the intransitive *q̓ʷala* 'be no more':

(20) ... si+x̌i+yak+nu s+q̓ʷala+yak+m+tixʷ
np+fast+hand+2s np+be·no·more+hand+[md]+3p-2s
'... that you use them up so fast'

(BCT 114, line 179)

In such clauses the middle marker seems to be performing its familiar function of marking low participant distinguishability, although in such instances, rather than marking partial identity of initiator and endpoint, it marks partial identity of initiator and mid-point or (in this case) instrument, the instrument being part of the initiator's body. Further evidence of this can be seen in the contrast been the sentences in (21), based on the transitive verb *cp* 'wipe [sth]':

(21) (a) cp+ak+cinu
wipe+hand+2s-1s
'I wipe your hand'

(Davis & Saunders 1975: 361)

(b) cp+ak+m+ic
wipe+hand+[md]+3s-1s
'I wipe it with my hand'

(Davis & Saunders 1975: 358)

In the first of these two sentence, the lexical suffix *-ak* 'hand' is taken to refer to the hand of the affected participant which is realized as the direct object; when *-m* is added to the expression, the suffix is interpreted as referring to the hand of the initiator and is given an instrumental role in the event. Thus, *-m* here serves to mark the (partial) identity of the initiator with another event participant, one which is clearly not the endpoint of the event.

Another, less frequent, transitivizing use of *-m* appears to involve the syntactic "promotion" of an oblique object or adjunct to the role of direct object, as illustrated in (22):

(22) (a) smatmx+ø ti+ʔimlk+tx ʔuɬ+ti+ʔimmlkii+tx
friend+3s D+man+D P+D+boy+D
'the man [is] a friend to the boy'

(b) smatmx+m+is ti+ʔimlk+tx ti+ʔimmlkii+tx
friend+[md]+3s-3s D+man+D D+boy+D
'the man took the boy as a friend'

(Davis & Saunders 1989: 124)

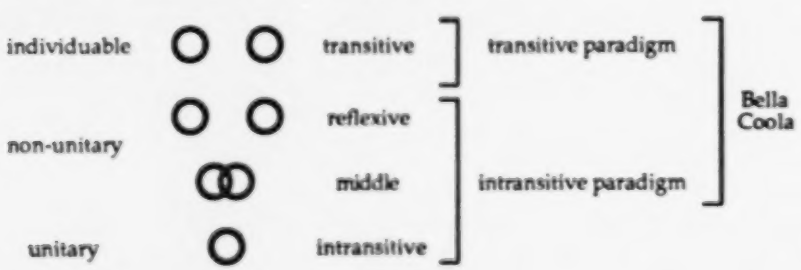
In the first sentence here, the noun *smatmx* 'friend' serves as a predicate nominal in a copular construction, while in the next example the addition of *-m* has created a transitive verb denoting an event, the NP previously contained in a prepositional phrase having been promoted to the status of direct object. While this form may seem roughly to be benefactive, in reality what seems to be at stake in the instances I have of such expressions is the initiator of the event conferring a particular social role or status—in this case, status as friend—upon the second event-participant, as opposed to conferring any specific kind of benefit. Under this analysis, the second participant—a fully individuated entity distinct from the initiator (thereby accounting for the clause's transitivity)—is not in any real sense the endpoint of the event, in that it has not undergone any change of state as a result of the initiator's action: the second participant remains physically unaffected (indeed, in such situations might even be unaware of anything having occurred), the only real change having taken place in the attitude of the initiator—that is, in the initiator's mind. The non-unitariness of the initiator implicit in this reading also motivates the shift in meaning

from that of a stative predicate (noun) to that of a verb denoting an event, as it allows for the construal of an initiator and an endpoint.

5) Transitivity and the Continuum of Unitariness

On the basis of the preceding discussion, it seems a safe bet to conclude that by far the majority of uses of the Bella Coola *-m* are indeed middle uses and that this morpheme conforms closely enough to well-known and widely recognized properties of middle-morphemes in the broad sample of languages examined by Kemmer (1993) that we can label *-m* as a marker of middle voice. Like the middle in language after language, *-m* appears in verbs denoting grooming and other actions directed towards the initiator's own body; it appears in verbs of emotion and cognition, verbs denoting speech events, and verbs of body posture, translational, and non-translational motion; and, as in many languages, it is used to form verbs expressing spontaneous (and a limited number of mediopassive) events. In addition to these standard uses of the middle-marker, which for the most part form syntactically intransitive clauses, Bella Coola applies *-m* to the formation of transitive clauses. The common thread linking all of these uses of *-m* seems to be Kemmer's (1993) notion of "relatively low elaboration of events" and, in particular, the ideas of unitariness and partial identification, wherein a clause fails to fully distinguish one clausal participant from another as a separate, autonomous entity. Unitariness, like Kemmer's participant distinguishability, forms a continuum, as shown in (23).

(23) The continuum of unitariness



At the lower end of the continuum we have events with a single, unitary participant and at the other extreme we have a two-participant event involving two highly individuable (and in themselves unitary) participants. The centre portion is divided between reflexives—with two individuated, unitary participants that are coreferential but otherwise distinct—and middles, in which some event-participant is conceived of as a non-unitary whole, parts of which fill distinct semantic

roles in the clause. Typically, one of these semantic roles is that of initiator but—in Bella Coola, at any rate—the role with which the initiator is partially identified need not be the semantic endpoint, but can be an intermediary point such as an instrument or the stimulus in an event of cognition. Another interesting feature of Bella Coola is that the minimal criteria for the occurence of the transitive agreement paradigm with a stem seems to be the construal of the event as having two fully individuable participants rather than the realization of a particular semantic role as the endpoint of the event; the result of this is the frequent appearance of the Bela Coola middle-marker in syntactically transitive clauses, a cross-linguistically unusual example of the varied and innovative uses of the Bella Coola *-m*.

NOTES

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[1] Bella Coola is a predicate-initial language, the sentence predicate showing either intransitive subject or transitive object-subject agreement with its arguments (any or all NPs being omissible), as in:

(i) (a) ksnmak+s/ø
work+3s
'[he/she] works'

(b) k̓x+is ti+ʔimlk+tx ci+xnas+cx
see+3s-3s D+man+D D+woman+D
'the man sees the woman'

As indicated in (a), the agreement marker for third-person singular intransitive subject has two allomorphs, the ø variant being more common in simple matrix clauses; like other Salishan languages, Bella Coola allows nouns to serve as intransitive predicates (giving a reading of "to be a ..."), and in these cases the noun appears sentence-initially,

bearing the ordinary intransitive agreement suffixes. The transitive agreement paradigm exemplified in (b) consists of a set of portmanteau morphemes which historically followed object-subject order and will be rendered this way in interlinear glosses. Verbs that appear in context with the transitive agreement paradigm will be glossed with an indefinite object ([sth] or [s.o.]). The circumfixes appearing with the nouns in (b) have a deictic function as well as marking a masculine/feminine/plural distinction.

The abbreviations used here are as follows: 1 = first person; 2 = second person; 3 = third person; agt = agent; caus = causative; D = deictic; dist = distributive; dub = dubitative; expb = expectable; *f* = feminine; impf = imperfective; in = internal; inc = inchoative; irr = irrealis; l.o.c. = lack of control; md = middle; np = nominalizing prefix; P = preposition; p = plural; pass = passive; perf = perfective; pnt = punctual; po = possessive; qtv = quotative; refl = reflexive; s = singular; s.o. = someone; sth = something.

[2] Alternatively, the non-unitariness of the participant could be one of construal over time—that is, the fact that the grammatical subject is not the same at the beginning and at the end of the described event may result in its being construed as a non-unitary entity.

[3] This also seems to tie in to an observation made by Nater (1984) that transitive verbs affixed with *-m* 'always' have a present progressive reading. In actual fact, many such examples in BCT appear as past time events or with perfective aspect marking, but it may nevertheless be true that the "progressive" sense that Nater picked up on lies in the "activity" as opposed to "event" reading of stems in this construction.

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OBVIATION ACROSS CLAUSE BOUNDARIES IN KUTENAI[1]

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Abstract: Kutenai has an obviation system reminiscent of the system found in Algonquian languages in which at most one third person nominal in a clause is proximate and others are obviative. Although the behaviour of proximate nominals within clauses and within texts reflects a special status for proximates, as having some sort of 'higher rank' than obviatives, there are no restrictions across clause boundaries within sentences that require that the proximate be higher in the sentence than proximate nominals.

0. Background

In a number of previous papers (Dryer 1991, 1992, 1994, 1996), I have discussed the mechanisms of obviation in Kutenai as they apply within clauses and across sentences within discourse. In this paper, I examine the intermediate possibility, of obviation within sentences but across clause boundaries. I will argue that there is no evidence of any syntactic conditions governing obviation across clause boundaries apart from those that also apply within clauses. These two conditions are first, that there can be no more than one proximate per sentence and second, coreferential nominals must agree in obviation. In particular there is no evidence of any conditions reminiscent of 'binding' conditions, no conditions by which proximates are preferred in higher positions than obviatives.

I will first summarize the basic properties of obviation within clauses in Kutenai and some other basic aspects of verbal morphology. Within clauses in Kutenai, the assignment of proximate and obviative is governed by the following principle. Among the third person nominals in a clause, the proximate nominal will be the highest third person nominal on the following hierarchy:

(1) subject > primary object > secondary object, oblique

For current purposes, I define subject and primary object in terms of the system of pronominal marking on verbs. Subjects are associated with proclitics for first and second person, and with additional verbal suffixes for first and second person plural. These are illustrated in the following examples.

(2) a. hin ¢xa-ni
2 talk-INDIC
'You (sg.) talked.'

b. hu ¢xa-na‡a?-ni
1 talk-1PL-INDIC
'We talked.'

Objects are associated with verbal suffixes for all combinations of first and second persons, singular and plural. These are illustrated in the following examples, where the subject is third person.

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(3) a. wu·kat-ap-ni
see-1SG-INDIC
'He/she/it/they saw me.'

b. wu·kat-is-kiɬ-ni
see-2-2PL-INDIC
'He/she/it/they saw you (pl.).'

Third person participants in Kutenai are not normally indicated on the verb. This is true for both third person singular and plural, which are never distinguished in Kutenai verb forms. This is illustrated in the examples in (3) for third person subjects of transitive verbs. The examples in (4) illustrate this for third person subjects of intransitive verbs.

(4) ¢xa-ni
talk-INDIC
'He/she/they talked.'

The examples in (5) illustrate this for third person objects.

(5) hu wu·kat-i
I see-INDIC
'I saw him/her/it/them.'

There is one situation in which verbs inflect for third person, namely when the subject of the verb is obviative. This is illustrated in (6)[2].

(6) qa˛ɬ ʔakmuxu-s waɬunak-ʔis niʔ watak
PTCL fall.out-OBV tongue-3.POSS the frog
'The Frog's [prox] tongue [obv] would come out.'
(Tape 126, Side B, line 125)

Secondary objects and obliques (which are difficult to distinguish in Kutenai, and which may be best viewed as a single category) are not marked on the verb and must be indicated by separate nominals. Only in fairly unusual circumstances does this arise with first or second persons. When it does arise, independent pronouns are used, as in (7)[3].

(7) ninkuʔis˛¢ k-a¢'kakiɬ niɬsik n-'in-i ¢aʔt-mu
3˛and SUBORD-black bull INDIC-be-INDIC brother-MUTUAL
'Him and Black Bull were brothers' (Tape NS.7, Story 3, line 103)

The example in (8) illustrates a clause where the subject is third person and thus is proximate, but where the object is obviative.

(8) n-'ipiɬ-ni swaʔ-s xaxas
INDIC-kill-INDIC panther-OBV skunk
'Skunk [prox] killed Panther [obv].'
(Boas Text 26: Skunk and Panther, line 25)

According to the hierarchy in (1), if the subject is first or second person, then the primary object will be proximate and all other nominals will be obviative, as in (9).

(9) **qapsin-s k-in-s↓ ʔaqak↓at↓ hamat-kiɬ-ki↓**
why-OBV SUBORD-2-ASP PRVB give-BENEF-2PL
qapsin-s
thing-OBV
'Why [obv] are you people giving it [prox] stuff [obv]'
(Tape NS.7, Story 2, line 12)

The example in (10) illustrates a case where both the subject and primary object are nonthird person and where an oblique or secondary object is thus proximate.

(10) **qapsin ɬin k-in si↓ ɬi·kat-ap-ki↓**
why only SUBORD-2 ASP look.at-1SG.OBJ-2PL
'Why [prox] are you looking at me?'
(Boas Text 63: Coyote and Deer, line 44)

Constrast the proximate form of **qapsin** 'why' in (10) with the obviative form **qapsins** in (9) above.

There are two kinds of situations which do not adhere to the hierarchy in (1). First, in the inverse construction, it is the object that is proximate, while the subject is obviative, as in (11).

(11) **wu·kat-aps-i pa↓kiy titqaʔ-s**
see-INV-INDIC woman man-OBV
'The man [obviative] saw the woman [proximate].'

Inverse clauses in which both arguments are nominal are not frequent, it being much more common for the object to be pronominal, as in (12).

(12) **qak↓-aps-i niʔ-s pa↓kiy-s**
tell-INVERSE-INDIC the-OBV woman-OBV
'The woman [obv] told them [prox]'
(Boas Text 30: The Woman and the Giant, line 36)

Note that in referring to the subject and object in inverse clauses, I will apply these terms in a semantic sense, despite the fact that I have given reasons (Dryer 1991, 1996), for describing what is semantically the object in inverse clauses as the subject. Ultimately, as argued in Dryer (1996), I view this sort of issue as terminological and nonsubstantive. Note that in inverse clauses like (11) and (12) in which what I am calling the subject is obviative, we do not find what is otherwise obviative subject marking on the verb, a fact which provides a reason for saying that this element is not the subject. As illustrated below (and discussed in Dryer 1991, 1996), if what is semantically the object in an inverse clause is obviative (i.e. if BOTH arguments are obviative), then we do get so-called obviative subject marking on the verb, providing a possible argument for saying that what is semantically the object in inverse clauses is the subject. But I will continue in this paper to use these terms in a more semantic sense.

A second phenomenon that does not conform to the hierarchy in (1), though not really an exception to it, is that in noun phrases involving a noun possessed by a third person, the possessed noun must be obviative. The possessor may or may not be proximate, depending on other factors. Possessed nouns are not inflected for their own obviation, but are inflected for the obviation of the possessor. Thus in (13), the possessed noun bears the third person possessive suffix **-ʔis**, while in (14), the possessed noun bears both the third person possessive suffix and the obviative suffix.

(13) **n-ʾuquxaki-ni yiɬkimi-ʔis**
INDIC-put.into-INDIC pot-3POSS
'He$_i$ [prox] put him$_j$ [obv] into his$_i$ [prox] bucket [obv].'
(Boas Text 26: Skunk and Panther, line 5)

(14) **swaʔ n-ʾumitɬkin-i yiɬkimi-ʔis-is**
panther INDIC-break-INDIC bucket-3POSS-OBV
'Panther$_j$ [prox] broke his$_i$ [obv] bucket [obv].'
(Boas Text 26: Skunk and Panther, line 10)

The obviative status of a noun possessed by a nonthird person can be demonstrated by examples in which it is functioning as subject, as in (6) above or (15), in which we find the obviative subject suffix **-s** on the verb.

(15) **n-aqap-s-i tiɬnamu-ʔis ʔinɬak**
INDIC-exist-OBV-INDIC wife-3POSS chicken.hawk
'Chicken Hawk had a wife.' (Boas Text 27: The Deluge, line 27)
(Literally: 'Chicken Hawk's [prox] wife [obv] existed')

Note that although the choice of proximate is grammatically determined with possessive constructions, the possessed nominal being obligatorily obviative, there is no grammatical restriction on whether the possessor or some *other* nominal in the clause is proximate. In (14) above, for example, the subject **swaʔ** 'Panther' is proximate and the noncoreferential possessor of the object is obviative. But the opposite choice is also possible, as illustrated in (16), in which the subject is obviative and the possessor of the object is proximate.

(16) **taxa-s ɬut-iɬ-s-i ʔa·kiɬqay-ʔis**
then-OBV suck-TRANS-OBV-INDIC finger-3POSS
'Then it [obv] sucked on his [prox] finger [obv].'
(Coyote and Yawukiykam Text, line 104)

1. Complement Clauses

Across clause boundaries, there is also some freedom as to what nominal is proximate, constrained by two principles. First, coreferential nominals must agree in obviation; if one is obviative then so must all coreferential ones. Second, as is the case within clauses, there can only be one proximate per sentence. The first of these principles is illustrated in (17), in which the matrix subject is proximate and thus the coreferential subordinate subject must be proximate as well.

(17) qaki?-ni ma↓i k-¢xa↓ hawasxu?mik.
say-INDIC Mary SUBORD-FUT sing
'Mary$_i$ [prox] said that she$_i$ [prox] would sing.' (E)

The second principle is illustrated in (18), in which the matrix subject is proximate and the noncoreferential complement subject is obviative.

(18) qaki?-ni ma↓i k-↓aquqana-s misa↓-s
say-INDIC Mary SUBORD-leave-OBV Mike-OBV
'Mary$_i$ [prox] said that Mike$_j$ [obv] left.' (E)

The following examples from texts illustrate the same two possibilities. The example in (19) illustrates a sentence in which the matrix subject and complement subject are the same, and the complement verb is not inflected for obviation, reflecting the fact that its subject is to be interpreted as coreferential to the matrix subject.

(19) taxa-s qaki?-ni tuma k-¢ ?isni↓ mitxa
then-OBV say-INDIC Tomas SUBORD-FUT be.the.one shoot
'Then Tomas$_i$ [prox] said he$_i$ [prox] would be the one to shoot them$_j$ [obv].' (Tape 146, Story 2, line 182)

The example in (20) illustrates a sentence in which the matrix subject and complement subject are noncoreferential, and hence the complement subject is marked obviative and the complement verb is inflected as having an obviative subject.

(20) qaki?-ni nasu?kin k-¢xa↓ mitxa-↓-is
tuq̓¢qamna-s
say-INDIC chief SUBORD-FUT shoot-PASS-OBV bird-OBV
'The chief said there was to be a bird shot.'
(Literally: The chief$_i$ [prox] said that a bird$_j$ [obv] would be shot.)
(Tape 21, line 163)

In texts, it is more common for examples to involve pronominal subjects rather than lexical ones, which in the case of third person nominals in Kutenai are implicit, reflected in the absence of any marking with proximate participants and by the obviative subject suffix with obviative participants functioning as subject. In the examples in (21) and (22), the proximate subject of the matrix clause is implicit, but the nonobviative form of the complement verb indicates that the subject of both clauses are the same.

(21) waha qaki?-ni k-sani↓xu?ni
no say-INDIC SUBORD-sick
'No, he$_i$ [prox] said he$_i$ [prox] was sick.' (Tape 71, Second Part, line 308)

(22) qaki?-ni xma-k mat-is
say-INDIC hypoth-SUBORD beat-2OBJ
'He$_i$ [prox] said he$_i$ [prox] could outrun you.' (Tape 126, Side B, line 28)

But in the examples in (23) and (24), the fact that the subordinate verb is inflected for an obviative subject indicates that its subject is distinct from the matrix subject and is to be interpreted as something from the preceding text distinct from the proximate participant.

(23) **qaki?-ni k-sahan-s**
say-INDIC SUBORD-bad-OBV
'He$_i$ [prox] said it$_j$ [obv] was bad.' (Tape 20, Second Part, line 24)

(24) **taxa-s qa↓wiy-ni ?in↓ak k-qaqap-s**
then-OBV think-INDIC hawk SUBORD-be.true-OBV
'Then Hawk$_i$ [prox] thought it$_j$ [obv] was true.' (Tape 21, line 17)

The notion of reference applicable to the notion of corefence includes apparently semantically empty subjects of zero-valence verbs like **wa↓uq̓kukut** 'rain'. Contrast, for example, the example in (25), in which the matrix subject is first person, and the complement verb is not inflected for obviative subject, with the example in (26), in which the matrix subject is third person and the complement verb IS inflected for obviative subject.

(25) **hu qa↓wiy-ni k-wa↓uq̓kukut**
I think-INDIC SUBORD-rain
'I think that it [prox] rained' (E)

(26) **qa↓wiy-ni k-wa↓uq̓kukut-s**
think-INDIC SUBORD-rain-OBV
'He$_i$ [prox] thinks that it$_j$ [obv] rained' (E)

A number of the examples above illustrate instances in which the noncoreferentiality of the subjects in the two clauses can be inferred from the fact that the matrix subject is proximate and the complement subject is obviative. But the opposite situation, in which it is the matrix subject that is obviative and the complement subject that is proximate, while less common, is also possible. The two sentences in (27) and (28) differ only as to which of the two nominals, the matrix subject or the complement subject, is proximate.

(27) **qaki?-ni ma↓i k-aqwi↓-s**
say-INDIC Mary SUBORD-dance-OBV
'Mary$_i$ [prox] said that he$_j$ [obv] danced.' (E)

In (27), the matrix subject is proximate, as indicated by the lack of obviative marking on both the subject **ma↓i** 'Mary' and on the verb **qaki?ni** 'say', while the complement subject is obviative, as is indicated by the obviative subject suffix **-s** on the complement verb **kaqwi↓s** 'dance'. In (28), in contrast, the matrix subject is obviative, as indicated by obviative marking on both the matrix subject **ma↓is** 'Mary-obv' and on the matrix verb **qakiksi** 'say-obv', while the complement subject is proximate, as indicated by the absence of obviative marking on the complement verb **kaqwi↓** 'dance'.

(28) qakik-s-i ma↓i-s k-aqwi↓
say-OBV-INDIC Mary-OBV SUBORD-dance
'Mary$_i$ [obv] said that he$_j$ [prox] danced.' (E)

The choice between the two forms in (27) and (28) is determined by the same sort of discourse factors that in general determine the assignment of proximate. Both of these sentences were provided by a native speaker in a elicitation situation in response to the English prompt 'Mary said that he danced', the form in (27) first and that in (28) second. Thus (28) is not simply a sentence that is judged acceptable. Furthermore, (28) is particularly natural since the matrix subject is an overt noun phrase while the complement subject is pronominal. There is in general a preference in any situation in which one nominal involves an overt noun and the other pronominal for the pronominal one to be the one chosen as proximate. The reasons for this are not syntactic but simply reflect the fact that the discourse conditions in which pronominal reference occurs are similar to those favouring proximate choice: a prominal reference occurs only when the referent is highly accessible in the preceding discourse, while overt noun phrases are more often used when their referent is somewhat less accessible. For this reason, (28) is a very natural way to express the meaning in question. The form in (27) would be natural in a discourse context in which the referent of the matrix subject is going to play a major role in the subsequent discourse, or in which the referent of the complement subject was already obviative in the preceding discourse.

The next set of examples to be discussed are examples from texts analogous to the example in (28), with an obviative matrix subject and a proximate complement subject. The example in (29), for example, occurs in a discourse context in which the referent of the complement clause is referred to in the immediately preceding discourse and is proximate there, while the referent of the matrix subject, the nupik'a (analogous to Algonquian manitou), is not referred to in the immediately preceding text and was obviative when last referred to, about ten clauses previously.

(29) taxa-s n-'upxa-s-i ni?-s nupik'a-s pa↓ qa
?in-i
then-OBV INDIC-know-OBV-INDIC the-OBV nupik'a-OBV EVID not
?in-i wisiya↓-s
be-INDIC sweathouse-OBV
'Then the nupik'a$_i$ [obv] knew that he$_j$ [prox] was not
sweat-house$_k$ [obv].' (Tape 126, Side A, line 86)

The example in (30) is analogous with one difference. Here, the subject of the matrix verb is coreferential to the object of the complement clause. But it is otherwise analogous, with the matrix subject obviative and the complement subject proximate.

(30) k-'upxa?-s ni?-s k-sahani↓wiy-na?t
SUBORD-know-OBV the-OBV SUBORD-angry-TRANS
'he$_i$ [obv] knew that they$_j$ [prox] were angry at him$_i$ [obv].'
(Boas Text 67: Wolf, line 10)

Here the referents of both the matrix subject and the complement subject are mentioned in the immediately preceding discourse, and the sentence in (30) continues their respective roles as proximate and obviative from the preceding discourse. Thus, we can understand why the preceding discourse determines the fact that the matrix subject here will be obviative and the complement subject proximate.

In situations like that in (30) in which the matrix subject is coreferential to the complement object, there exists, discourse context aside, a second syntactic way to express the meaning in question. The pair of elicited examples in (31) and (32) illustrate the two possibilities, in (31) with the matrix subject proximate and the complement subject obviative, in (32) with the reverse situation.

(31) ma·i qa·wiy-ni k-wu·kat-aps.
Mary think-INDIC SUBORD-see-INVERSE
'Mary$_i$ [prox] thinks that he$_j$ [obv] saw her$_i$ [prox].' (E)

(32) ma·i-s qa·wiy-s-i k-wu·kat.
Mary-OBV think-OBV-INDIC SUBORD-see
'Mary$_i$ [obv] thinks that he$_j$ [prox] saw her$_i$ [obv].' (J)

The example in (32) is analogous to the text example in (30). The example in (31) expresses the same basic meaning as that in (32), but with the matrix subject proximate and the complement subject obviative. Note, however, that this entails the the complement object be proximate, since it is coreferential to the matrix subject, and hence that the subordinate verb in (31) must be inverse, since its subject is obviative and its object proximate.

The text examples in (33) and (34) are analogous to (32) in that the matrix subject is proximate, the complement object is coreferential to the matrix subject and hence proximate as well, and the complement subject is thus obviative, so the complement verb is an inverse. The assignment of proximate and obviative in (33) is somewhat surprising in that the two participants here have the reverse status in the immediately preceding text, the Kuyokwe being obviative and the old man proximate, but the subsequent text suggests that this sentence involves a shift of point of view from that of the old man to that of the Kuyokwe, and the shift requires that both participants be represented by overt noun phrases in (33), despite their both being referred to in the immediately preceding text. This sentence is thus somewhat analogous to a paragraph-initial sentence in English.

(33) kuyu?ki qa·wiy-ni ¢xa· ?up·-aps ni?-s nu·?aqna?-s
Kuyokwe think-INDIC FUT kill-INVERSE the-OBV old.man-OBV
'The Kuyokwe$_i$ [prox] thought that the old man$_j$ [obv] would kill them$_i$ [prox].' (Boas Text 72: Pine Cone, line 62)

The example in (34) differs in that here syntactic factors dictate the assignment of proximate and obviative, since the complement subject is possessed by a nominal that is coreferential to the matrix subject and hence it would not be possible for the complement subject to be proximate. As a result, the complement verb must be inverse.

(34) n-'upx-ni taxa-s tuxa ?at-k-s
INDIC-know-INDIC then-OBV almost ASP-SUBORD-ASP
ɬaxanxu?-naps ti-ɬnamu-?is
catch.up.to-INV wife-3POSS
'He$_i$ [prox] knew that his$_i$ [prox] wife$_j$ [obv] was about to catch up with him$_i$ [prox].' (Skinkuȼ Text, line 46)

The possibility of a higher clause with an obviative subject and its complement clause with a proximate subject can also arise in cases in which there are two levels of embedding, in which the complement of the main clause itself contains a further complement. The text example in (35) illustrates this possibility.

(35) qaɬwiy-ni k-ȼxaɬ qaɬwiy-s kuyu?ki-s ki?-in.
think-INDIC SUBORD-FUT think-OBV Kuyokwe-OBV SUBORD-be
'He$_i$ [prox] thought the Kuyokwe$_j$ [obv] would think that it was he$_i$ [prox].' (Boas Text 72, line 65)

In (35), we have three verbs, the main verb qaɬwiy-ni 'think', its complement verb qaɬwiys 'think' (in nonindicative obviative form), and the lower verb ki?in 'be', which is the complement of the lower of the two verbs meaning 'think'. Here, the subject of the main clause is coreferential to the subject of the most deeply embedded verb while the subject of the intermediate verb is different (kuyu?kis 'Kuyokwe-obv'). In this case, the subject of the highest and lowest verbs are proximate, while the subject of the intermediate verb is obviative. But the relation between the intermediate clause and the lowest clause is analogous to the situation illustrated in (28), (29), and (30) above, with the subject of the matrix verb obviative and the subject of the subordinate verb proximate.

Another situation in which the matrix subject can be obviative and the complement subject proximate arises with the indefinite subject construction. The indefinite subject construction is characterized by a distinct verbal suffix -(n)am, simple examples of which are illustrated in (36) and (37).

(36) taxa-s sukakati-nam-ni
then-OBV many-INDEF.SUBJ-INDIC
'Now there were a great number of people there.'
(Coyote and Yawukiykam Text, line 369)

(37) n-'anaxam'-nam-ni qakiy-am-ni
INDIC-come.out-INDEF.SUBJ-INDIC say-INDEF.SUBJ-INDIC
'They came out and said:' (Boas Text 63: Coyote and Deer, line 51)

The example in (36) illustrates one usage of the indefinite subject construction, one corresponding to the English use of the noun 'people'. The example in (37) illustrates what is probably the most common use of this construction, where an actual group of people are denoted, but the exact makeup of the group is vague and where there the identity of those in the group is unimportant in the discourse. In (37), this group of people are the inhabitants of a town who are mentioned a number of times in the preceding text. As the example in (34) illustrates, the referent of the indefinite subject suffix is often understood to be the same across a

sequence of clauses in discourse. The indefinite subject construction is only used with intransitive verbs, the passive construction filling this role with transitive verbs in which the "semantic subject" is indefinite in the sense associated with the indefinite subject construction.

Indefinite subjects can be proximate or obviative. The examples in (36) and (37) involve proximate indefinite subjects, there being no major human referents in the discourse context competing for proximate status. When indefinite subjects compete with a clearly defined human referent for proximate status, the indefinite subject (almost?) always loses, and is thus obviative. This often happens in sentences containing more than one clause, and such sentences thus are one case to examine obviation operating across clauses. If there is a more clearly defined human referent in the sentence, it will normally be proximate and the indefinite subject will be obviative. Example (38) illustrates this with a proximate matrix subject and an obviative complement subject.

(38) taxa-s k-'upxa ni¢taha↓
then-OBV SUBORD-know boy
tuxa k-¢ hu↓ haqa↓pa↓ni-nam-is
almost SUBORD-FUT finish talk-INDEF.SUBJ-OBV
'Then the boy knew that the conversation was about over.'
(Literally: Then the boy$_i$ [prox] knew that the people$_j$ [obv] were almost finished talking.) (Tape 71, Second Part, line 231)

In (38), the indefinite subject is the complement subject, but in other cases it is the matrix subject. In such cases, following the principle that indefinite subjects lose out for proximate status to more clearly defined human referents, the matrix subject is normally proximate and the subordinate subject obviative. Examples illustrating this are give in (39) and (40).

(39) qa↓wiy-nam-is k-¢xa↓ qa ?upi↓-i↓
think-INDEF.SUBJ-OBV SUBORD-FUT not kill-PASS
'they thought that they would not kill him.'
(Literally: 'they$_i$ [obv] thought that he$_j$ [prox] would not be killed' *or*
'they$_i$ [obv] thought that they$_i$ would not kill him$_j$ [prox]')
(Boas Text 72: Pine Cone, line 74)

In (39), the subordinate clause is grammatically passive, but its agent is understood to have the same referent as the subject of the matrix clause. This use of the passive construction, where the agent is interpreted to be the same as the indefinite subject in a preceding clause is actually very common in texts. The example in (40) is similar except that here we have two levels of embedding, the main clause subject being an obviative indefinite subject, the intermediate subject being proximate, and the lowest subject being obviative, but distinct in reference from the main clause subject.

(40) qaky-am-is-ni k-qaki k-qa qaqap-s
say-INDEF.SUBJ-OBV-INDIC SUBORD-say SUBORD-not be.so-OBV
'They$_i$ [obv] say she$_j$ [prox] said it$_k$ [obv] was not so.'
(Tape 127, Last Part, line 99)

The next set of examples illustrate cases in which both the subject of the matrix clause and the subject of the complement clause are obviative. Since more than one nominal in a sentence can be obviative, some of these examples involve cases in which the subjects of the two clauses are coreferential, while others involve cases in which the subjects are not coreferential. Consider first a case of the former sort, given in (41) in which the subjects of the two clauses are coreferential.

(41) qaɬwiy-s-i ʔumaɕnatqɬik̓amu-naps k̓iʔ skinkuɕ-s
think-OBV-INDIC make.fun.of.family.of(?)-INV Coyote-OBV
'Coyote thought he would make fun of his family.'
(Literally: 'Coyote$_i$ [obv] thought he$_i$ [obv] would make-fun-of-family-of him$_j$ [prox]'. (Tape NS.7, Story 3, line 79)

In (41), the proximate nominal is the object of the complement clause, while both subjects refer to Coyote and are obviative. Note that the complement verb here is inverse, since its subject is obviative and its object is proximate.

The next example involves a case in which both subjects are obviative but are not coreferential. In (42), there are four referents, one proximate and three obviative. The possessor of the complement of the copula verb is proximate, while the matrix subject, the complement subject, and the complement of the copula in the complement clause are all obviative.

(42) n-̓upxa-s-i ɕin ʔi-s ki-ʔin-s sit̓-is.
INDIC-see-OBV-INDIC only that-OBV SUBORD-be-OBV blanket-3POSS
'They$_i$ [obv] saw that this$_j$ [obv] was only his$_i$ [prox] blanket$_k$ [obv].'
(Boas Text 72, line 66)

2. Adverbial Clauses

The principles illustrated so far with complement clauses also apply to subordinate clauses serving an adverbial function. In (43), the matrix subject is obviative, the sole role of the proximate participant being that of object in the subordinate clause (which is thus inverse):

(43) Taxa-s ʔat qakik-s-i "sak sak sak"
then-OBV IMPERF say-OBV-INDIC
taxa-s ʔat k-̓upx-naps
then-OBV IMPERF SUBORD-see-INVERSE
'Then they$_i$ [obv] would say "sak sak sak" when they$_i$ [obv] see him$_j$ [prox].' (Boas Text 72: Pine Cone, line 23)

Subordinate clauses serving an adverbial function often occur as nominals, consisting of a determiner plus a clause, as in (44).

(44) Taxa-s niʔ-s k-̓aɬqananuqiɬxuʔ-naps
then-OBV the-OBV SUBORD-carry.across.on.horseback-INV
taxa-s n-uɕinkqupikimik.
then-OBV INDIC-take.off.running
'Then when he$_j$ [obv] packed her$_i$ [prox] to the other side, she$_i$ [prox] took off running.' (Chief and Ogress Text, line 234)

In (44), the subordinate clause is nominalized, consisting of the determine **ni?s** 'the-obv' plus the subordinate clause **ƛ̓a↓qananuqi↓xu?naps**. Note that the determiner is marked obviative, indicating that this nominal consisting of the subordinate clause is obviative.

3. "Headless" Relative Clauses

The final type of clause I will discuss is that of relative clauses. Relative clauses are not common in texts, except for headless relative clauses, in which the structure is Det + S, where the resulting NP (or DetP) is coreferential to a "pronominal" element in the relative clause. In (45), the element in question is obviative subject in the relative clause, as indicated by the obviative subject suffix on the verb, and obviative object in the matrix clause.

(45) **Taxa-s mityax-ni ni?-s snaqayqap-s**
then-OBV chase-INDIC the-OBV roll-OBV
'He [prox] ran after that which was rolling [obv]'
(Literally: 'He$_i$ [prox] ran after the$_j$ [obv] it$_j$ [obv] was rolling' or 'He$_i$ [prox] ran after the thing$_j$ [obv] such that it$_j$ [obv] was rolling')
(Coyote and Yawukiykam Text, line 44)

Once again, the general principle that coreferential nominals in different clauses must agree in obviation is satisfied here, the element being obviative in both clauses. Note that in these cases the coreference might be viewed as arising from quantifier binding, the structure of the NP being something like 'the x such that x was rolling', though the Kutenai structure is more superficially simply 'the [it was rolling]'. In discussing these, I will refer to the Det+S as the matrix clause nominal (in this example **ni?s snaqayqaps** 'the [it was rolling]') and the possibly pronominal reference in the relative clause (the 'it' in the gloss 'the [it was rolling]') as the relative clause nominal.

In (45), the nominal containing the relative clause is obviative. But it can also be proximate. In (46), for example, the matrix clause nominal is the sole nominal in the matrix clause and is proximate.

(46) **?at yunaqa?-ni k-a↓q̓at̓i ↓awiya↓-s**
IMPERF many-INDIC SUBORD-pick huckleberry-OBV
'There were many who picked huckleberries'
(Literally: 'the ones$_i$ [prox] such that they$_i$ [prox] picked huckleberries$_j$ [obv] were many') (Boas Text 27: The Deluge, line 26)

The example in (46) also illustrated the possibility of the determiner being absent.

In (47), the matrix clause nominal is proximate and subject, with an understood obviative object (and thus an exception to the tendency for pronominal elements to be the preferred choice for proximates), and the relative clause nominal is also proximate and subject, with the complement of the copula verb obviative.

(47) n-ʔupx-ni ni? k-ʔinqaptik kiʔanɑ̓aɬ-nana-s
INDIC-see-INDIC the SUBORD-become buck-DIMIN-OBV
'Then the one who had become a young buck saw him.'
(Literally: 'the one$_i$ [prox] such that he$_i$ [prox] became a young buck$_j$ [obv] saw him$_k$ [obv]') (Boas Text 67: Wolf, line 25)

Relative clauses sometimes involve a type of syntactic nominalization (by which I mean a nominalization that results in a nominal or noun phrase, not one that involves a noun, analogous to gerund constructions in English) that involves a combination of a proclitic **ya-** in the verb complex and a suffix (or enclitic?) **-ki**, as in (48), both glossed 'NOM'.

(48) ɬxaɬ saniɬwiy-ni ma-niskiɬ niʔ-s hu
FUT angry-INDIC mother-2PL.POSS the-OBV 1
ya-qakin-ki
NOM-do.to-NOM
'Your mother [prox] will be angry because of what [obv] I did to her [prox]. (Skinkuɬ Text, line 39)

Nominalizations involving **ya-** and **-ki** are most commonly used where the element in the relative clause that is coreferential to the nominal itself is not functioning as a syntactic argument (a subject or primary object) in the relative clause. In (48), for example, it is functioning as a secondary object of the ditransitive verb **qakin** 'do to' whose argument structure is 'A [subj] does B [secondary obj] to C [primary obj]'.

The example in (49) is a second example of a headless relative clause involving **ya-ki** nominalization though here it is the subject in the relative clause that is involved.

(49) xa-s k-ʔupxa niʔ-s ya-qasin-nut-aps-ki
then-OBV SUBORD-see the-OBV NOM-??-chase-INV-NOM
'then she$_i$ [prox] saw the one [obv] who had been after her$_i$ [prox].'
(Literally: 'then she$_i$ [prox] saw the one$_j$ [obv] such that he$_j$ [obv] had been after her$_i$ [prox].' (Tape 127, Last Part, line 209)

In (49), the matrix clause nominal is obviative, again the object of a direct transitive verb, while the coreferential relative clause nominal is obviative, serving as the subject in the relative clause. Since the subject of the matrix clause is proximate and is coreferential to the object of the relative clause, the latter is proximate as well, and the subordinate verb is inverse as a result.

The example in (50) is a fairly rare type of example of example involving an inverse verb both of whose arguments are obviative.

(50) k-ɬaxaɬ ʔupxa_¢ k-ɬatɬ ʔakɬiɬ-mu
SUBORD-arrive see_and SUBORD-PRVB ask-INSTR
ya-qasn-aps-is-ki
NOM-own-INVERSE-OBV-NOM
'When he [prox] got there and started asking about
the one [obv] who owned her [obv],'
(Literally: 'When he$_k$ [prox] got there and started asking about the one$_i$ [obv] such that he$_i$ [obv] owned her$_j$ [obv],') (Tape 21, line 130)

The use of the inverse in the subordinate clause in (50) is apparently motivated by the fact that although both arguments are obviative, the object is recoverable from the preceding text while the subject is not, and is hence in some sense more topical.

Contrast this with the example in (51), in which again both arguments in the relative clause are obviative, but in which the verb is direct rather than inverse.

(51) paɬ ki-ʔin-s ¢ahaɬ-s k-'itkin-s ¢upqaʔ-s
EVID SUBORD-be-OBV grass-OBV SUBORD-make-OBV deer-OBV
'it was grass that he had made into a deer'
(literally: 'that$_i$ [obv] such that he$_j$ [obv] had made it$_i$ [obv] into a deer$_k$ [obv] was grass$_l$ [obv]') (Boas Text 67: Wolf, line 85)

The proximate element does not occur in this sentence but is referred to in the surrounding text.

The example in (52) is another example in which both nominals in the relative clause are obviative.

(52) k-wu·kat niʔ-s ya-qaqap-s-ki titqat'-s
SUBORD-see the-OBV NOM-be.like-OBV-NOM man-OBV
'he saw what the men were like'
(Literally: 'he$_i$ [prox] saw the thing(?)$_j$ [obv] such that the men$_k$ [obv] were like it$_j$ [obv]') (Tape NS.28, No. 2, line 13)

In (52), both the subject and the understood pronominal complement in the relative clause are obviative.

It should be noted that one sometimes finds what are apparently instances of the same relative clause construction in which there is no determiner, but in which the ya-ki nominalization is used, as in (53).

(53) hu ¢xaɬ ¢xa-ni ya-qaɬ ʔitkin-ki ka·kin
I FUT say-INDIC NOM-in.that.way do-NOM wolf
niʔ-s pik'ak-s.
the-OBV long.ago-OBV
'I will tell you what [obv] Wolf [prox] did long ago [obv].'
(Boas Text 67: Wolf, line 1)

4. "Headed" Relative Clauses

The examples above all involve so-called headless relative clauses. Less common in texts are relative clauses with heads. Kutenai employs socalled internally-headed relative clauses, where the structure is exactly the same as that of socalled headless relative clauses, namely Det + S, except that the relative clause nominal in the relative clause is an overt nominal rather than being pronominal.

(54) ni?-s ma k-wu·kat pa↓kiy-s misa↓
the-OBV ASP SUBORD-see woman-OBV Mike
n̓-ip-s-i
INDIC-die-OBV-INDIC
'The woman that Mike saw died' (E)
(Literally: 'The$_i$ [obv] [Mike$_j$ [prox] saw the woman$_i$ [obv]] died.' or 'The one$_i$ [obv] such that Mike$_j$ [prox] saw the woman$_i$ [obv] died.')

The matrix subject in (54) is everything preceding the last word, n̓ipsi 'die', which is the matrix verb. This matrix subject consists of the determiner ni ?s 'the-obv' followed by ma kwu·kat pa↓kiys misa↓, which is well-formed as a clause in the subordinative mood meaning 'Mike saw the woman'. Hence a literal translation would be 'the [Mike saw the woman] died'. The obviation system provides a way of indicating what is the so-called 'head' in the relative clause, in other words which nominal in the relative clause corresponds to the head in the English translation, or more accurately, which nominal in the relative clause is coreferential to the nominal in the matrix clause. In (54), the matrix nominal is obviative, as indicated both by the obviative form of the determiner ni ?s and by the obviative subject form of the matrix verb n̓ipsi 'die'. Hence the so-called 'head', the nominal inside the relative clause coreferential to the matrix nominal, must be obviative as well, and since the sole obviative nominal in the relative clause is pa↓kiys 'woman-obv', it must be the "head".

Compare (54) to (55), in which the matrix nominal and the coreferential nominal in the relative clause are proximate.

(55) ni? pa↓kiy ma k-wu·kat misa↓-s n̓-ip-ni
the woman ASP SUBORD-see Mike-OBV INDIC-die-INDIC
'The woman that saw Mike died.'
(Literally: 'the one$_i$ [prox] such that she$_i$ [prox] saw Mike$_j$ [obv] died') (E)

Because of the position of the nominal pa↓kiy 'woman', (55) is less obviously an internally-headed relative clause, but I believe that it is probably best understood as one in which the nominal pa↓kiy 'woman' is fronted within the relative clause, the word order most likely reflecting the fact that this is an elicited sentence with somewhat complex structure whose order mirrors the order in the English as an artifact of the elicitation situation. Most instances in texts of relative clauses with an overt "head" employ the typical predicate-initial order of Kutenai.

The following examples illustrate examples of relative clauses from texts. They reflect the same basic principles that coreferential nominals must agree in obviation across clause boundaries, but that otherwise there are no syntactic restrictions on the assignment of obviation.

(56) si↓ haq̓maxu-mu-ni ni?-s k-↓a ?aymaxu ¢upqa?-s
ASP scare-INSTR-INDIC the-OBV SUBORD-back carry.two deer-OBV
'he scared them with the two Deer he was carrying'
(Literally: 'he$_i$ [prox] scared them$_k$ [obv] with the ones$_j$ [obv] such that he$_i$ [prox] was carrying-two-of deer$_j$ [obv]')
(Boas Text 63: Coyote and Deer, line 42)

In (56), the proximate participant is denoted by the subject of both the matrix and relative clauses, while the obviative participant is object of both clauses.

The following example is one in which the proximate nominal is in the relative clause and the only nominal in the matrix clause is obviative.

(57) n-anq̓↓a?-s-i ni?-s k-mitxa
INDIC-go.distance.before.dying-OBV-INDIC the-OBV SUBORD-shoot
¢upqa?-s.
deer-OBV
'The deer [obv] that he [prox] shot went a distance before dying.'
(Literally: 'the [he shot the deer] went a distance before dying' *or* 'the one [obv] such that he [prox] shot the deer [obv] went a distance before dying') (Gravelle & Morgan 1979/1989, page 109)

It is clear that the nominal ni?s kmitxa ¢upqa?s 'the [he shot the deer]' refers to the deer and not to the one who shot the deer, since the determiner ni?s 'the-obv' is marked obviative and the matrix verb nanq̓↓a?si is marked as having an obviative subject, which means that the so-called 'head' in the relative clause must be obviative, and the nominal ¢upqa?s 'deer-obv' in the relative clause satisfies this, while the understood subject does not, since it is proximate, as indicated by the absence of obviative subject marking on the subordinate verb kmitxa 'shoot'. I assume, though I do not have the actual data for this, that if the determiner and the matrix verb were proximate in form, then the sentence would have meant 'The person who shot the deer went a distance before dying'.

The example in (58) is analogous: the fact that this nominal refers to the tail is clear from the fact that the determiner is obviative and the nominal for 'tail' in the relative clause is obviative.

(58) ni?-s k-'iyakin ?in↓ak ?a-kinuq̓ma?na-s
the-OBV SUBORD-put.up chicken.hawk tail-OBV
'[Then they watched] the tail [obv] that Chicken Hawk [prox] had put up.'
(Literally: 'the thing$_i$ [obv] such that Chicken Hawk$_j$ [prox] had put up the tail$_i$ [obv]') (Boas Text 27: The Deluge, line 124)

The example in (59) involves two relative clauses, one embedded within the other, although this example, like the occasional example in texts, violates one of the principles I have described in that it contains two proximate nominals, the matrix subject ʔa·qɬ¢maknik̓ 'Indians' and the embedded nominal niʔ titqat̓ 'the man'.

(59) qaqaʔ-ni ʔa·qɬ¢maknik̓ ... niʔ-s ya-qakiʔ-ki
be.that.way-INDIC Indians the-OBV NOM-say-NOM
niʔ k-upsnam niʔ titqat̓
the SUBORD-be.on.way the man
'Indians are like what the man who was on his way said'
(Literally: 'Indians$_k$ [prox] are-like the [the [the man was on his way] said it]' *or* 'Indians$_k$ [prox] are-like the thing$_i$ [obv] such that the one$_j$ [prox] such that the man$_j$ [prox] is on his way said it$_i$ [obv]'
(NS.21, Story 10, line 38)

Apart from this anomaly, the nominal niʔ titqat̓ 'the man' in (59) is functioning as the subject of the more deeply embedded verb k̓upsnam 'be on his way' with the resultant meaning 'the man was on his way', which combines with the determiner niʔ 'the' to form a nominal whose free English translation is 'the man who was on his way' and whose more literal translation is 'the [the man was on his way]'. This nominal in turn serves as the subject of qakiʔ 'say', yielding a clause meaning 'the man who was on his way said it', which is then nominalized with ya-ki and combined with the determiner niʔs to form a nominal whose free translation is 'what the man who was on his way said' and whose literal translation is 'the [the [the man was on his way] said it]'. The fact that the determiner niʔs is obviative in (59) makes it clear that the meaning is 'what the man who was on his way said' rather than 'the man who was on his way who said it'.

5. Conclusion

The many examples discussed here are primarily intended to illustrate a negative conclusion: that there is no evidence of any syntactic conditions governing obviation across clause boundaries apart from those that also apply within clauses, that there can be no more than one proximate per sentence and coreferential nominals must agree in obviation. In particular there is no evidence of any conditions reminiscent of 'binding' conditions, no conditions by which proximates are preferred in higher positions than obviatives.

NOTES

[1] I will use the commonly used name "Kutenai" throughout this paper. The name used by speakers of the language in Canada is "Ktunaxa". The research for this paper was supported by Research Grant 410-88-0267 from the Social Sciences and Humanities Research Council of Canada and by the National Science

Foundation Grant # 9120438. I am indebted to Elizabeth Gravelle, a native speaker of Kutenai, for transcribing and translating the texts from which examples are cited here, and to Lawrence Morgan both for discussion and for making various of his materials available to me. See Morgan (1991) for a detailed description of the phonology and morphology of Kutenai.

2 The examples cited in this paper are of four types and are annotated accordingly. Some of the examples are from texts, either ones published in Boas (1918) or ones collected by Lawrence Morgan and transcribed and translated by Elizabeth Gravelle. Examples from texts of the latter category are identified by tape number. The examples from these texts are annotated accordingly. The examples from Boas (1918) have been converted to the modern orthography by me. Both types of text examples may contain some errors because some forms I have not had the opportunity to check. The remaining two types of examples cited are ones produced in elicitation (marked E) or ones presented for judgment (marked J). Where possible, I cite text examples, since I assume these to be more reliable data. I also assume that elicited examples are more reliable than examples judged acceptable. While text examples are most reliable, examples of the other sorts are often better examples for illustrating the points being made, and such examples are only given on the assumption that analogous (though perhaps more opaque) examples from texts could be provided. For this reason, I will in many places in this paper provide both kinds of examples, some of types E or J for clarity, and some from texts to show that the construction illustrated is actually used.

3 The fourth word in (7), represented as n-ʔ̇in-i involves the combination of the indicative proclitic n- with the verb stem ʔin 'be'. When the proclitic n- (or the subordinative proclitic k-) combine with a stem beginning with /ʔ/, the result is a ejective consonant n̓ (or k̓). I represent this in the hyphenation for morpheme boundaries by placing the ejective symbol ̓ above the hyphen, conveying that morphologically it goes with the stem that follows while phonetically it goes with the consonant that precedes.

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Verb Agreement and the Structure of the Clause in Karaja

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Abstract: In this paper, we discuss the subject and object agreement systems in Karaja, a brazilian indigenous language of the Macro-Je stock, with relation to the Feature Specification Constraint (FSC) proposed by Murasugi, 94. We then analyze the implementation of the SOV order in Karaja. We present evidence in Karaja for the existence of a single functional phrase - not necessarily an AgrO - which must be postulated in order to handle the OV word order and check the object structural case. We then contrast object clitic constructions with object verb-internal affixes and main verbs with auxiliaries. Finally, we offer some concluding remarks on the structure of the clause and the parametrization of the functional category of Agreement.

0 - Introduction

Chomsky (1993) elaborates on the proposals set forth in Pollock (89) that the Infl node is made up of separate projections of the functional categories Tense, Negation and Agreement, analyzing the agreement system as being formed by the projection of two functional phrases, namely, AgrSP and AgrOP. Two possibilities are considered in Chomsky (1993) to analyze the combination of V and its affixes: a building theory and a checking theory. According to the former, affixes are acquired in overt syntax by uninflected verbs through X° movement of V to the head of the relevant functional category. Checking theory, on the other hand, predicts that verbs are inserted in syntax fully inflected, checking its morphemes against the corresponding features in the functional categories to which they move. A third possibility is suggested by Iatridou (1990) and adopted by Mitchell (1994) to account for agreement cases which exhibit fusional morphology : the relational theory of agreement, which proposes that agreement is not a functional node at all, but a relational

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category. More recently, Chomsky (1995) proposes to dispense entirely with AgrSP and AgrOP, opening the way for a change from an AGR-based to a multiple-SPEC theory.

In this paper, we review some of these hypotheses in order to assess their relevance to the analysis of Karaja, an Amazonian language of the Macro-Je stock. We start the discussion by analyzing the subject and object agreement systems in Karaja with relation to the Feature Specification Constraint (FSC) proposed by Murasugi, 94. We will then analyze the implementation of the SOV order in Karaja. We present evidence in Karaja for the existence of a single functional phrase - not necessarily an AgrO - which must be postulated in order to handle the OV word order and check the object structural case. We then contrast object clitic constructions with object verb-internal affixes and main verbs with auxiliaries. Finally, we offer some concluding remarks on the structure of the clause and the parametrization of the functional category of Agreement.

1 - AgrS and AgrO in Karaja

The Karaja Data: Karaja is a language that allows null arguments. Subject agreement morphemes, which are obligatory, may optionally co-occur with an overt argument; object agreement morphemes, on the other hand, are restricted for first and second persons and, therefore, cannot co-occur with overt NP's.

When fully inflected, verbal stems in Karaja are accompanied by subject, object and theme prefixes and by suffixes that indicate aspect, number, negation, mood/tense and others[1] :

(1) r-i-wa-heteny-myhy-reny-ð-reri
3S-theme-1O-hit-ASP-PL-NEG-PRES
"They do not hit me continuously"

Minimally, inflected verbal roots are supported by subject and object prefixes, theme prefixes and mood/tense suffixes:

(2) r-u-ru-ra
3S-theme-die-Past
"(he) died"

(3) ar-e-lyy-kre
1S-theme-tell-Fut
"(I) will tell"

(4) t-e-lyy-ta
2S-theme-tell-Past
"(you) told"

Note that in (2), (3) and (4) the root can be considered a bound form, as it must be obligatorily accompanied by person and theme prefixes as well as by mood/tense suffixes. Thus, forms such as (5), (6) or (7), in which at least one of these affixes is not present, are not possible in Karaja.

(5) * ø-u-ru-ra
ø-theme-die-Past

(6) * ar-ø-lyy-kre
1S-ø-tell-Fut

(7) * t-e-lyy-ø
2S-theme-tell-ø

Additionally, Karaja presents a system of pronominal agreement in which there is a clear split in the marking of the sole argument of intransitive verbs. In this sense it is clearly a language of the active type. Thus, as illustrated in (8), stative verbs are conjugated with a series of subject prefixes which is basically identical with the series of prefixes which identify objects of active verbs. The complete paradigm is shown in (9).

(8) 1. wa- wa-su-reri "I am dirty"
1Sub-dirty-pres.

2. a- a-su-reri "You are dirty"
2Sub-dirty-pres.

3. i- i-su-reri "He is dirty"
3Sub-dirty-pres

(9)

Person	Possessive	A	Sa	So	P
1	wa-	r-/ar-	r-/ar-	wa-	-wa-
2	a-	t-/b-	t-/b-	a-	-a-
3	i-	r-	r-	i-	ø

The Feature Specification Constraint: Murasugi (94) discusses several morphological features in AGR, and argues that the specification or spell-out of such features is constrained by a structural principle, the Feature Specification Constraint (FSC), which states that the features of a lower Agr must be less specified than, or as equally specified as, the features of a higher Agr. Murasugi proposes that the notion of a structurally lower element being less specified than a higher one is found throughout the grammar and concludes that the FSC is based on the structural relation between a higher and a lower Agr.

Apparently, the Karaja data displayed above seems to comply with the FSC, since the subject cross-referencing verb morphemes make up a more elaborate series than the object verb-internal markings. Subject agreement morphemes vary according to mood/tense whereas verb internal object morphemes are restricted to first and second persons, which is a clear indication that so called object agreement is less specified than subject agreement. However, the Karaja analysis sketched below poses a problem for the structural nature of the FSC, which crucially relies on the

existence of two agreement phrases: an AgrSP and an AgrOP. As we will argue in the following sections of this paper, there is evidence in Karaja in favor of the positing of an AgrOP, but against the positing of an AgrSP.

II - Word order

According to Maia (1986), Karaja is typologically classified as an active-stative language which displays dominant SOV word order. In this section we seek to account for the facts of Karaja word order within the minimalist framework, following Chomsky (92), who develops proposals by Pollock (89) that VP-adjoined adverbs can provide a test to determine whether or not V-raising occurs before spellout in a language. First we discuss the linearization of the SOV word order in clauses in which the main verb is fully inflected; we then analyze clauses in which the main verb is a bare infinitive and the auxiliary is inflected; finally, we suggest a parametrization between the object and the subject agreement systems: while the former has clearly a functional syntactic configuration, the latter is analyzed as a morphosyntactic relation, resulting from postsyntactic operations.

The paradigm presented in (10) seems to indicate that main verbs in Karaja move overtly to the head of AgrO:

(10) a. Kua habu hawò r-i-winy-ra ywimy.
that man canoe 3S-theme-make-Past slowly
"That man made the canoe slowly"

b. * Kua habu riwinyra ywimy hawò.
that man made slowly canoe

c. ? Kua habu hawò ywimy riwinyra.
that man canoe slowly made

d. * Hawò riwinyra kua habu ywimy.
canoe made that man slowly

Notice the contrast between the sentence in (a) on the one side and the (b) and (c) sentences, on the other side. Within the framework under consideration here, these differences are taken to indicate that the verbal and nominal features of AgrO are strong in Karaja. The ungrammaticality of the (b) example is thus analyzed to indicate that V-raising in the overt syntax is not enough to guarantee the convergence of the sentence. In Chomsky's 1992 system, the object NP must also raise to the specifier of AgrO in order to check accusative case in the spec/head relation with the head of AgrO. Similarly, the ungrammaticality of (c) is an evidence that the object NP cannot raise past the spec of VP to land on the spec of AgrOP, if the verb does not raise to the head of AgrO in order to provide the adequate checking domain for the object NP to be equidistant from both the spec of VP and the spec of AgrOP. The ungrammaticality of the (d) sentence is an indication that the subject NP must move out of its VP internal position to check its nominative case before the point of spellout. Thus, the moves of V and of the subject and the object NP's in the overt syntax produce the linearization of the SOV order which is dominant in Karaja.

Notice that morphological requirements determine the movement of V to AgrO: the need to check the strong AgrO feature before spellout. Therefore, as shown above the verbal head adjoins to the AgrO head creating the complex head [$_{AgrO}$ V + AgrO]. The verb movement to AgrO creates equidistance between the spec of VP and the spec of AgrO, allowing the object NP to raise over the specifier of VP in compliance with the shortest movement principle (Chomsky 1992).

Notice, however, that in order that the SOV linearization may be maintained, the verb should not move any higher before spellout. The fact that the verb can only move from AgrO covertly at LF entails the following implications: a) unlike AgrO features, which are strong, and must be checked in the overt syntax, AgrS features are weak in Karajá, allowing procrastination of V movement till LF; b) a constructive system which explains affixation via syntactic head movement is ruled out; c)

equidistance cannot be invoked in order to permit the VP-internal subject NP to skip the closest potential landing site - the spec of AgrO - and target the spec of TP.

Notice, finally, that basically the same facts may be adequately predicted in Chomsky's 1995 system. In the (1995) system of multiple specs, the light verb represented as little v has a strong N-feature, requiring the object to raise to the outer spec configuration, checking its features with V. If an adverbial phrase is adjoined to vmax, object raising crosses it, yielding the construction OB-ADV-vmax.

III - Object clitics and Auxiliaries

Karajá clitics which identify first, second and third persons are morphologically case marked with the same morpheme *-my* , which marks the object NP's of some verbs. Object verbal desinences occur immediately to the left of the verbal root and identify first and second persons only. In some verbs, clitics seem to be in complementary distribution with the verb-internal object affixes, as exemplified in the examples in (11). In (11a) a clitic construction is provided. Notice that the first person clitic *wa* in (11a) receives the same marking *-my* as the nominal object of the verb *-ohote-* "to hit" in (11b). Notice further in (11c) that the verb internal object marking strategy is not available to the same verbal root which takes the clitic. Examples (11d), (11e) and (11f) show the reverse possibility, that is, a case in which a verbal root accepts object internal markings while the clitic strategy is not available:

(11)a. Kua habu wa-my r-a-ohote-re
that man 1S-ACC 3S-theme-hit-Past
" That man hit me"

b. Kua habu weryry-my r-a-ohote-re
that man boy-ACC 3S-theme-hit-Past
"That man hit the boy"

c. * Kua habu r-a-wa-ohote-re
that man 3S-a-1O-hit-Past
"That man hit me"

d. Kua habu weryry r-i-heteny-re
that man boy 3S-theme-hit-Past
"That man hit the boy"

e. Kua habu r-i-wa-heteny-re
that man 3S-theme-1O-hit-Past
"That man hit me"

f. *Kua habu wa-my r-i-heteny-re'
that man 1O-ACC 3S-theme-hit-Past
"That man hit me"

Constructions with auxiliaries may provide an additional ground to support the analysis of object desinences and clitics in Karajá as being manipulated in the overt syntax in contrast with subject affixes which do not seem to be checked within the structural configuration of a functional phrase. Consider the following paradigm:

(12)
(a) Waha benora waximy r-a-re detimy
my father tucunare to fish 3S-theme-Past rapidly
"My father went to fish tucunare rapidly"

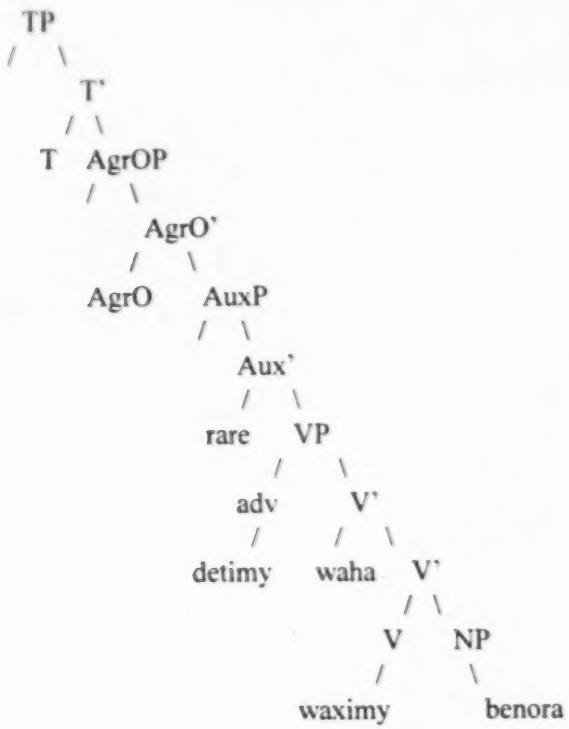
(b) *Waha benora rare waximy detimy
my father tucunare went to fish rapidly

(c) *Waha benora waximy detimy rare
my father tucunare to fish rapidly went

(12a) is a construction in which the main verb is a bare infinitive. The subject prefix as well as the tense suffix are realized in an auxiliary form which must follow the main verb, as demonstrated by the ungrammaticality of (12b). (12c) tests the relative position of auxiliary and a VP-adjoined adverb, indicating that the auxiliary must be above the

VP at spellout[2] . We propose that the auxiliary is heading an Aux phrase which is merged to AgrO, above the VP node, as displayed in the configuration (13):

(13)



According to this analysis, the auxiliary has no morphological justification to raise before spellout since subject agreement and tense are both weak in Karaja and may procrastinate to check its features at LF. The main verb however must raise overtly since, as we showed above, Karaja has strong AgrO features. This analysis is independently motivated by the observation that the object morpheme which can occur prefixed to the verbal stem (14a), cannot occur in the auxiliary verb (14b), but may occur as a clitic, outside the verbal stem (14c):

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14 (a) Kua ijorosa r-i-wa-rò-kre.
that dog 3S-theme-1O-bite-Fut.
"That dog will bite me"

(b) *Kua ijorosa r-i-rò-my r-a-wa-kre
that dog 3S-theme-bite-Sub. 3S-theme-1O-Fut
"That dog is going to bite me"

(c) Kua ijorosa wa-my r-i-rò-my r-a-kre
that dog 1O-Sub 3S-theme-bite-Sub 3S-theme-Fut
"That dog is going to bite me"

The fact that the object morpheme cannot be affixed to the auxiliary provides independent confirmation to the analysis presented above: the object agreement feature is strong in Karaja and must be checked before spellout, thus it can be realized in the main verb and as a clitic to the main verb, being properly checked in overt syntax in both cases. However it cannot occur as an affix to the auxiliary, since auxiliaries remain in situ in overt syntax, only checking its features at LF. Auxiliaries in Karaja can take the complete set of verbal affixes, except for object prefixes. Thus a sentence as (15) with a fully inflected verb can optionally be expressed as (16) in which all affixes, but the object prefix are realized in the auxiliary. (17) as (14b) demonstrate that the object prefix cannot be realized in the auxiliary. This fact becomes clear if we adopt the analysis sketched above.

(15) r-i-wa-heteny-myhy-reny-ð-reri
3S-theme-1Obj-hit-Asp. cont.-Pl-Neg-Pres
"They are not hitting me continuously"

(16) r-i-wa-heteny-my r-a-myhy-reny-ð-reri
3S-theme-1Obj-hit-Sub 3S-theme-Asp.cont.-Pl-Neg-Pres
"They are not hitting me continuously"

(17) * r-i-heteny-my r-a-**wa**-myhy-reny-ð-reri
3S-theme-hit-Sub 3S-theme-**1Obj**-Asp.cont.-Pl-Neg-Pres
"They are not hitting me continuously"

IV- The structure of the clause and the status of the functional categories

In contrast with the system of object agreement, which is manipulated at the level of overt syntax through spec/head agreement within a functional node above VP (clitics) by adjunction of the verb to the head of AgrOP (object verbal-internal desinences), the Karaja system of subject agreement seems to be better understood in terms of morphosyntactic relations than in terms of a syntactic structural configuration. The existence of multiple subject agreement morphology in Karaja is a clear indication that a single AgrS node would not be able to handle the syntactic checking of a verb such as exemplified in (18) and in (19), in which the second person subject feature spreads to the plural and tense morphemes. Following Roberge & Cummins (1994), we suggest that the subject phi-features inserted in the verbal form in the lexicon are not checked in the syntax, but sent to the morphological component of PF after spellout. Notice that it is not simply a phonological process which takes place here, since the verbal root is not affected by the spreading. It could be further speculated that the subject agreement phi-features which do not get checked in the syntax are visible at PF, triggering independent post-syntactic machinery available in the morphological component of PF. This analysis is consistent with the claim in Chomsky (95) that AGR exists only when it has strong features, since it is nothing more than an indication of a position that must be occupied by overt operations. Since subject agreement morphemes are weak, there is no reason for an AgrSP to be present at all and the subject agreement relations are manipulated post-syntactically, as suggested.

(18) **r**-a-rybè-**reny**-**re**
3S-theme-speak-PL-Past
"They spoke"

(19) **t**-a-rybè-**teny**-**te**
2S-theme-speak-2S/PL-2S/Past

Clearly, the analysis of the fragment of Karaja clause structure presented here implies that syntactic movement is only invoked in relation to the case of nominals and to AgrO. The whole set of verbal affixes (subject, aspect, direction, plural, negation, mood/tense)[3] need only to be checked at LF, what is in compliance with the economy considerations which are at the root of the Minimalist Program.

In summary, Karaja presents V-movement of main verbs out of the VP shell to check strong AgrO features and allow Object NP shift to the spec of AgrO past the spec of VP, in order to license the checking of accusative case for the object NP via spec/head agreement. Auxiliary verbs are merged to the head of AgrO, above the VP and do not need to raise in the overt syntax to check any features, since the only strong affixes in Karaja are the object prefixes which do not append to auxiliaries. We suggest that the Aux node is transparent to long head movement, as proposed by Rivero (94) for languages of the Balkans. Thus, unlike French, which displays main verb movement as well as auxiliary movement, and unlike English which displays auxiliary movement but not main verb movement, Karaja exhibits main verb movement, but not auxiliary movement. It is also proposed that the subject agreement system in Karaja may be better understood as being structured by means of morphophonological rules at the level of morphology after spellout, whereas the object agreement system has a more strictly syntactic nature.

NOTES

[1] We follow here the analysis of Karaja verbal morphology proposed in Fortune (64) and developed by Maia (86). It must be noted, however, that Rivail (94), following Fortune (73), proposes a reanalysis of the theme prefixes as part of the verbal stem.

[2] Even though the auxiliaries focused in this paper seem to be simply tense suffixes, they belong to a very elaborate class, expressing distinct semantic features (cf. Maia (86)). Thus it is not possible to analyze them as simply features in T and it is necessary to postulate that auxiliaries are full projections in Karaja.

[3] As our main concern in this paper is to discuss the nature of agreement in relation to basic word order, we do not present the complete set of the lexical and functional categories in Karaja. In Maia (1997), a more elaborate proposal of Karaja clause structure is outlined, including the representation of the Complementizer Phrase (CP) and the Focus Phrase (FP).

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Reduplicated Numeral in Salish
Gregory D. S. Anderson

Unitariness and Partial Identification
in the Bella Coola Middle Voice
David Beck

Obviation across Clause Boundaries in Kutenai
Matthew S. Dryer

Verb Agreement and the Structure of the Clause
Marcus Maia